

# Attachment C - Project Design Plans

## ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT IN THE CITIES OF PASADENA AND SOUTH PASADENA, CALIFORNIA

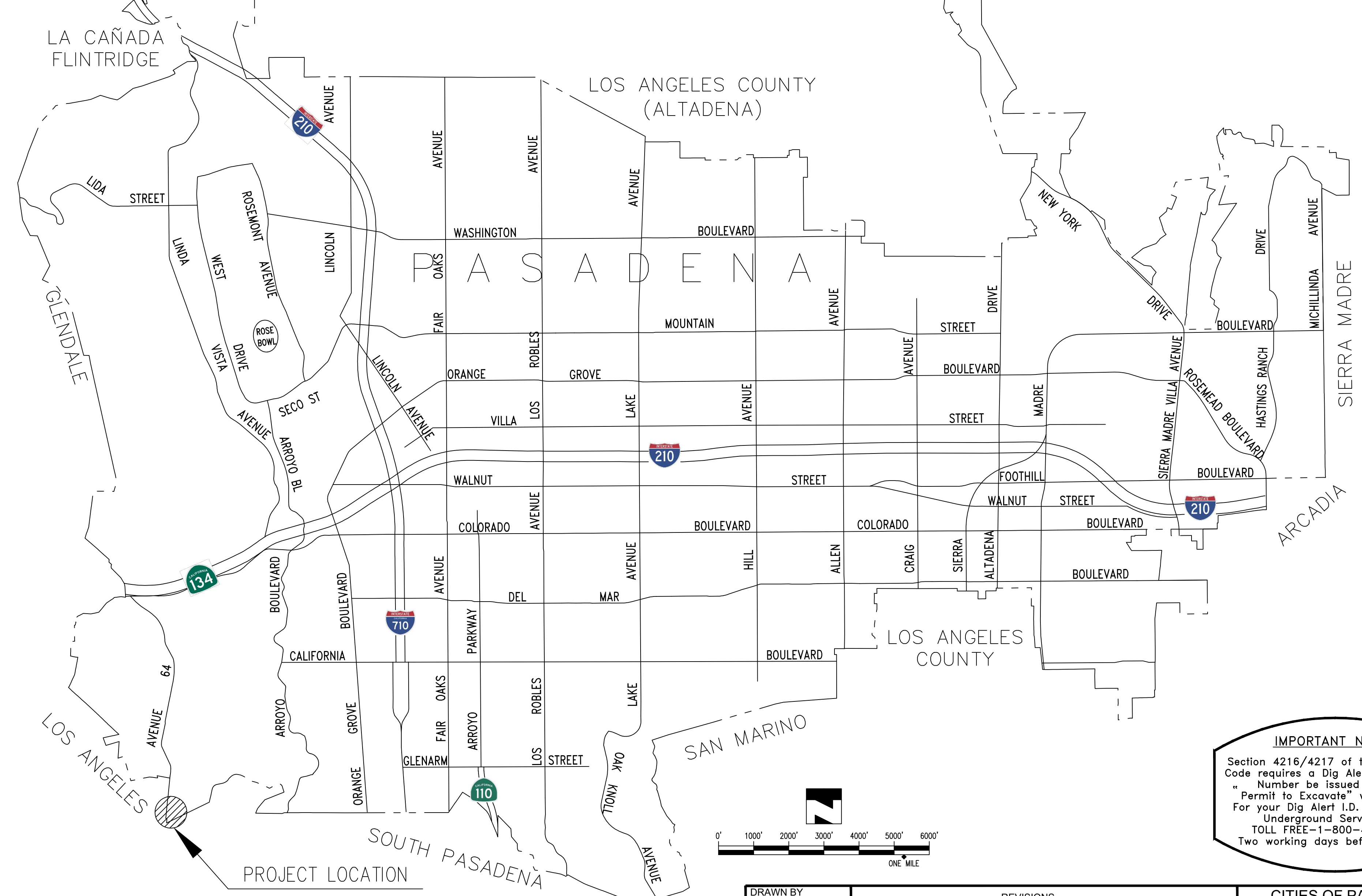
SUBMITTED	APPROVED
XXXXXXXXXX	M. KRIS MARKARIAN DATE CITY ENGINEER/DEPUTY DIRECTOR REGISTERED CIVIL ENGINEER NO. 57442 REGISTRATION EXPIRES: DECEMBER 31, 2023

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**GENERAL NOTES:**

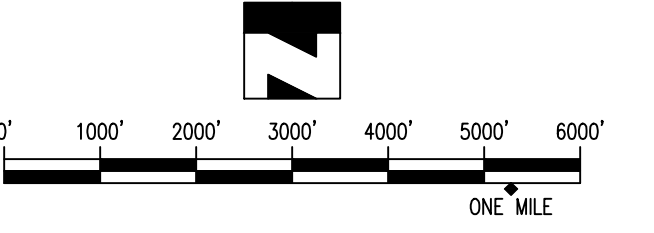
- ALL WORK TO BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" 2021 EDITION, INCLUDING ANY SUPPLEMENTS, THE LATEST EDITION OF CITY OF PASADENA RECURRING SUPPLEMENTS AND MODIFICATIONS TO THE ABOVE, AND THE PROJECT SPECIFICATIONS FOR "SAN RAFAEL TREATMENT WETLANDS AND STORMWATER CAPTURE PROJECT"; IN THE CITY OF PASADENA, CALIFORNIA.
- ALL NEW CONCRETE CONSTRUCTION WILL MATCH EXISTING COLOR, FINISH, TEXTURE, AND SCORING LINE. IMPACT TOOLS AND EQUIPMENT WILL NOT BE USED FOR DEMOLITION. SAW CUTTING OF EXISTING CONCRETE, CURB, PAVEMENT, ETC. SHALL BE REQUIRED PRIOR TO DEMOLITION TO MINIMIZE VIBRATION TO ADJACENT BUILDINGS. EXISTING SURROUNDING SIDEWALKS SHALL BE CLEANED USING LOW-PRESSURE POWER WASHING USING ONLY WATER, NO MORE THAN 200 PSI.
- THE CONTRACTOR SHALL PROTECT IN PLACE EXISTING STRUCTURES. EXTREME CARE MUST BE TAKEN WHEN WORKING IN THE VICINITY OF CONCRETE CURBS, BUILDINGS, AND LIGHT POSTS. PCC WHEEL STOPS TO BE REMOVED & RE-INSTALLED WITH CARE AT THE SAN PASCUAL SITE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE STARTING WORK.



LEGEND & ABBREVIATIONS	
FG	FINISHED GRADE
FS	FINISHED SURFACE
INV	INVERT
XX.XX	PROPOSED ELEVATION
(XX.XX)	EXISTING ELEVATION
S=X.XXXX	PROPOSED SLOPE OF PIPE
(S=X.XXXX)	EXISTING SLOPE OF PIPE
X:X	RATIO SLOPE
MH	MAINTENANCE HOLE
TG	TOP OF GRADE
RIM	MAINTENANCE RIM ELEVATION
X.XX%	GRADE SLOPE
(X.XX%)	EXISTING GRADE SLOPE
G	GAS LINE
W	WATER LINE
SD	STORM DRAIN LINE
SS	SANITARY SEWER LINE
RW	RECLAIMED WATER LINE
T	TELECOM LINE
(XX)	EXISTING CONTOUR
XX	PROPOSED CONTOUR

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

**IMPORTANT NOTICE**  
Section 4216/4217 of the Government Code requires a Dig Alert Identification Number be issued before a "Permit to Excavate" will be valid. For your Dig Alert I.D. Number Call Underground Service Alert TOLL FREE-1-800-422-4133 Two working days before you dig.



DRAWN BY AT	REVISIONS				CITIES OF PASADENA AND SOUTH PASADENA -DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY AT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	SHEET G-1
CHECKED BY CAS							SHEET TITLE COVER SHEET	01 OF 97
			AS BUILT				SCALE AS SHOWN	DWG. NO. XXXXXX

Date: July 8, 2022 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\COMBINED TITLE NOTES DETAILS\G\_LARROYO-SECO\_COVER-SHEET.DWG

GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE PROJECT TECHNICAL SPECIFICATIONS. WORK NOT COVERED BY THE PROJECT SPECIFICATIONS SHALL CONFORM TO THE STANDARD PLANS OF LOS ANGELES COUNTY, THE CITY OF PASADENA, AMERICAN PUBLIC WORKS ASSOCIATION AND CALTRANS STANDARD PLANS AND SPECIFICATIONS (ALL LATEST EDITIONS).
- NOTIFICATION: AT LEAST TEN (10) DAYS BEFORE THE START OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY, IN WRITING, ALL HOMES LOCATED WITHIN 500 FEET OF THE WORK AREA, OF THE PROPOSED CONSTRUCTION START DATE. A COPY OF SAID WRITTEN NOTIFICATION SHALL BE PROVIDED TO THE INSPECTOR FOR WRITTEN APPROVAL BEFORE THEY ARE DISTRIBUTED TO THE OCCUPANTS OF THE ABUTTING PROPERTY.
- THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER TWO (2) WORKING DAYS IN ADVANCE PRIOR TO STARTING WORK AT (626) 744-7311 (SAN PASCUAL SITE) OR (626) 744-4195 (SAN RAFAEL SITE).
- THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES 48 HOURS IN ADVANCE PRIOR TO WORKING AROUND THEIR FACILITIES.
- THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 811 48 HOURS IN ADVANCE PRIOR TO WORKING AROUND THEIR FACILITIES.
- THE CONTRACTOR SHALL VISIT THE SITE AND BE KNOWLEDGEABLE OF CONDITIONS THEREON. THE CONTRACTOR SHALL INVESTIGATE, VERIFY AND BE RESPONSIBLE FOR ALL CONDITIONS OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE CITY OF ANY CONDITIONS REQUIRING CORRECTION OR MODIFICATION PRIOR TO PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF ALL WORK ON THE SITE.
- EXISTING ELEVATIONS AND LOCATIONS TO BE JOINED BY THE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE COMMENCING THE WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE DRAWINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL DRAWINGS WITH ITS SUBCONTRACTORS. ALL SUBCONTRACTORS SHALL BE FURNISHED WITH COMPLETE SETS OF PLANS AND SPECIFICATIONS BY THE CONTRACTOR.
- WHERE SPECIFIC DIMENSIONS, DETAILS, OR DESIGN INTENT CANNOT BE DETERMINED, CONSULT THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES AND PROTECT THEM FROM DAMAGE AS REQUIRED. ALL EXISTING UTILITY CROSSINGS SHALL BE POTHOLED AND FIELD LOCATED. IN ANY INSTANCES WHERE THE CLEARANCE BETWEEN THE TOP OF THE EXISTING PIPE AND THE BOTTOM OF THE CROSSING PIPE OR CONDUIT IS LESS THAN 18", CONTRACTOR SHALL INSTALL BLANKET PROTECTION IN ACCORDANCE WITH THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION NO. 225-2.

EXISTING FACILITY NOTE

ALL EXISTING INFORMATION SHOWN ON THE PLANS PREPARED BY CRAFTWATER HAS BEEN TRANSFERRED FROM DOCUMENTS PROVIDED BY THE CITY OF PASADENA. CRAFTWATER HAS PROVIDED DRAFTING SERVICES ONLY WITH REGARD TO DEPICTING EXISTING IMPROVEMENTS AND CONDITIONS. CRAFTWATER CANNOT GUARANTEE THE ACCURACY OR COMPLETENESS OF EXISTING INFORMATION SHOWN. IF CONTRACTOR NOTICES ANY DISCREPANCIES BETWEEN EXISTING INFORMATION SHOWN ON THESE PLANS AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL GIVE NOTICE OF SUCH FACT TO THE CITY OR ITS REPRESENTATIVE WITHOUT DELAY.

JOB SITE RESPONSIBILITY

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; AND THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

WORK AREA RESTRICTIONS

- ONCE AUTHORIZED BY THE CITY TO COMMENCE WORK WITHIN THE LACFCD STORM DRAIN, THE CONTRACTOR SHALL NOTIFY THE FLOOD MAINTENANCE DIVISION AT TELEPHONE (626) 458-4304 (8:00AM TO 4:00PM) AND WATER RESOURCES DIVISION (OPERATIONS SECTION) AT TELEPHONE (626) 458-6177 AND PROVIDE THEM WITH A SCHEDULE OF ACTIVITIES A MINIMUM OF 120 HOURS (5 WORKING DAYS) BEFORE STARTING ANY WORK UNDER THE PERMIT.
- CONTRACTOR SHOULD BE AWARE THAT IMPROVEMENTS WITHIN THE LACFCD STORM DRAIN MAY OCCUR WHEN LARGE FLOWS ARE PRESENT WITHIN THE LACFCD STORM DRAIN, RAIN GAUGES THROUGHOUT THE WATERSHED SHOULD BE MONITORED DURING ALL WORK WITHIN THE LACFCD STORM DRAIN. CONTRACTOR IS RESPONSIBLE FOR SAFELY DIVERTING AND CONVEYING FLOW WITHIN THE WORK AREA THROUGHOUT THE DURATION OF CONSTRUCTION.
- PRIOR TO ANY WORK WITHIN THE LACFCD STORM DRAIN, THE CONTRACTOR SHALL SUBMIT A WATER DIVERSION PLAN TO THE CITY AND THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT (LACFCD) TO PROVIDE BYPASS CAPACITY AS FOLLOWS:
  - APRIL 16 TO MAY 31: xx.xx CFS (33%)
  - JUNE 1 TO AUGUST 31: xx.xx CFS (5%)
  - SEPTEMBER 1 TO OCTOBER 14: xx.xx CFS (33%)
  - NO WORK WILL BE ALLOWED IN THE LACFCD STORM DRAIN DURING THE PERIOD OF OCTOBER 15-APRIL 15 PLEASE SEE PERMIT POLICY DURING THE STORM SEASON FOR MORE DETAILS.
- THE CONTRACTOR SHALL SUBMIT THE WATER DIVERSION PLAN A MINIMUM OF 60-DAYS PRIOR TO THE ANTICIPATED START DATE OF THE WORK TO OCCUR WITHIN THE STORM DRAIN. THE WATER DIVERSION PLAN IS REQUIRED TO BE REVIEWED AND APPROVED BY THE CITY AND LACFCD.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM NOTES

- IN THE CASE OF EMERGENCY, CALL CITY OF PASADENA ENGINEER AT (626) 744-7311.
- SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ONSITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
- STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORTATION FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE PROJECT APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
- THE CONTRACTOR IS REQUIRED TO PREPARE AND SUBMIT THE SWPPP FOR APPROVAL BY THE CITY.

GENERAL NOTES

UTILITY NOTES

- A PERMIT SHALL BE OBTAINED AND ALL FEES AND DEPOSITS FOR CONSTRUCTION INSPECTION SHALL BE PAID TO THE LOS ANGELES COUNTY PUBLIC WORKS AT THE PERMIT COUNTER, 900 SOUTH FREMONT AVENUE, 8TH FLOOR, PRIOR TO STARTING WORK UNDER THIS CONTRACT. ALSO, ALL OTHER REQUIRED PERMITS, SUCH AS ROAD EXCAVATION PERMITS, MUST BE OBTAINED PRIOR TO STARTING WORK.
- APPROVAL OF THIS PLAN BY LOS ANGELES COUNTY DOES NOT CONSTITUTE A REPRESENTATION TO THE ACCURACY OF THE LOCATION, OR THE EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITY, PIPE, OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL SHEETS.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (INCLUDING SUPPLEMENTS).
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 5-7.2 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION IN REGARD TO SAFETY ORDERS AND SHALL CONFORM TO THE "MINIMUM PUBLIC SAFETY REQUIREMENTS" AS SHOWN ON THE LOS ANGELES COUNTY PUBLIC WORKS STANDARD PLAN 6008-1.
- ELEVATIONS ARE IN FEET ABOVE U.S.C. AND G.S. MEAN SEA LEVEL DATUM OF 1929 UNLESS OTHERWISE INDICATED.
- NO CONCRETE SHALL BE PLACED UNTIL THE FORMS AND REINFORCING STEEL HAVE BEEN PLACED, INSPECTED, AND APPROVED.
- ALL STRUCTURAL CONCRETE SHALL BE PORTLAND CEMENT CONCRETE WITH AN ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED.
- TRANSVERSE REINFORCEMENT AND TRANSVERSE JOINTS SHALL BE PLACED AT RIGHT ANGLES (OR RADIAL) TO THE CONDUIT CENTERLINE EXCEPT AS OTHERWISE SHOWN ON THE DRAWINGS.
- ALL STEEL ADJACENT TO FACE OF CONCRETE SHALL HAVE A 2-1/2-INCH CLEARANCE UNLESS OTHERWISE SPECIFIED.
- REINFORCEMENT SHALL BE DEFORMED BARS OF INTERMEDIATE GRADE STEEL, PER ASTM A615 GRADE 60.
- ALL BAR BENDS AND HOOKS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE "MANUAL OF STANDARD PRACTICE."
- DIMENSIONS FROM FACE OF CONCRETE TO STEEL ARE TO CENTERLINE OF STEEL UNLESS OTHERWISE NOTED.
- ALL STEEL THAT IS TO BE CONTINUOUS SHALL HAVE A MINIMUM LAP OF 30 BAR DIAMETERS OR 18 INCHES, WHICHEVER IS GREATER.
- ALL CONSTRUCTION JOINTS IN THE FOOTING OR SLABS AND WALLS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED.
- ALL EXPOSED EDGES SHALL BE FINISHED WITH A 3/4-INCH CHAMFER.
- UNLESS OTHERWISE SHOWN, CONCRETE DIMENSIONS SHALL BE MEASURED VERTICALLY OR HORIZONTALLY AND PARALLEL OR AT RIGHT ANGLES (OR RADIAL) TO THE CENTER LINE OF CONSTRUCTION.
- CONCRETE BACKFILL IS REQUIRED WHEN THE PIPE HAS LESS THAN ONE-FOOT OF COVER. THE CONCRETE BACKFILL SHALL CONSIST OF 1:3:5 MIX, PORTLAND CEMENT CONCRETE POURED FROM WALL TO WALL OF TRENCH AND FROM BOTTOM OF TRENCH TO A MINIMUM OF 4 INCHES OVER THE TOP OF THE PIPE.
- ALL PIPES SHALL BE PLACED IN TRENCH IN NATURAL GROUND AND/OR COMPACTED FILL. THE GROUND LEVEL BEFORE THE TRENCHING SHALL BE AT LEAST 3 FEET ABOVE THE TOP OF THE PIPE ELEVATION OR AT FINISH SURFACE ELEVATION, WHICHEVER IS LESS.
- ALL BACKFILL AND RELATIVE COMPACTION FILLS OUTSIDE OF STREET RIGHT OF WAY SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 90 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM SOIL TEST D 1557-91 METHOD D UNLESS OTHERWISE SPECIFIED. THIS SHALL BE CERTIFIED BY A SOILS ENGINEER. THIS CERTIFICATION SHALL BE SUBMITTED TO THE CITY ENGINEER PRIOR TO ACCEPTANCE OF THE WORK BY THE COUNTY.
- ALL BACKFILL AND FILLS WITHIN STREET RIGHTS OF WAY SHALL BE COMPACTED IN ACCORDANCE WITH CITY REQUIREMENTS UNLESS OTHERWISE NOTED AND INSPECTED BY THE CITY. THE SOIL COMPACTION SHALL BE CERTIFIED BY A GEOTECHNICAL ENGINEER.
- PIPE BEDDING SHALL BE:
  - IN ACCORDANCE WITH THE LOS ANGELES COUNTY PUBLIC WORKS STANDARD PLAN NO. 3092 UNLESS OTHERWISE NOTED.
  - ACCORDING TO STANDARD PLAN NO. 3080-2, CASE III, EXCEPT BELL AND SPIGOT PIPE, WHICH SHALL BE CASE II BEDDING UNLESS OTHERWISE SHOWN. W VALUES SHALL BE AS SPECIFIED ON STANDARD PLAN NO. 3080 FOR CASE III BEDDING, NOTES 3 (A), 3 (B), AND 3 (C). IF THE W: VALUE AT THE TIP OF THE PIPE IS EXCEEDED, THE BEDDING SHALL BE MODIFIED AND/OR PIPE OF ADDITIONAL STRENGTH SHALL BE PROVIDED. THE PROPOSED MODIFICATION SHALL BE APPROVED BY PUBLIC WORKS.
- PIPE SHALL BE EMBEDDED 5 INCHES INTO ALL STRUCTURES INCLUDING INLET AND HEAD WALLS UNLESS OTHERWISE SPECIFIED.
- THE MINIMUM CONCRETE COVER FOR REINFORCEMENT IN PRECAST CONCRETE PIPE SHALL BE 1 INCH IN PIPE HAVING A WALL THICKNESS OF 2 1/2 INCHES OR GREATER AND 3/4 INCH IN PIPE HAVING A WALL THICKNESS OF LESS THAN 2 1/2 INCHES.
- ALL CATCH BASINS WITHIN THE DEDICATED STREET RIGHT OF WAY SHALL BE CONSTRUCTED PER THE STREET PLANS.
- ALL REFERENCES ON THIS PLAN TO THE COUNTY ENGINEER, ROAD DEPARTMENT, OR FLOOD CONTROL DISTRICT SHALL APPLY TO THE APPROPRIATE ELEMENTS OF PUBLIC WORKS.
- EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
- WHERE THE UTILITIES ARE INDICATED ON THE DRAWINGS TO BE SUPPORTED, SAID SUPPORTS - SHALL BE IN ACCORDANCE WITH STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION NO. 224 UNLESS OTHERWISE INDICATED.
- MANHOLES SHALL USE THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION NO. 630 FOR THE "FRAME AND COVER" AND NO. 635-3 FOR THE "STANDARD DROP STEP."
- THIS WATER QUALITY SYSTEM WILL NOT BE FIELD ACCEPTED UNTIL THE STREETS HAVE BEEN PAVED, MANHOLES BROUGHT TO GRADE, AND THE SYSTEM CLEANED TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.
- THE SOILS ENGINEER OF RECORD SHALL INSPECT AND APPROVE THE FOUNDATION EXCAVATIONS BEFORE STEEL OR CONCRETE IS PLACED.
- STORM DRAIN MANHOLE COVERS CONSTRUCTED PER S.P.P.W.C. STANDARD PLANS 630-4, 631-4, 632-4, AND 633-3 SHALL BE CAST WITH THE LETTERS "L.A.C.F.C.D.". THE LETTERS SHALL BE 1 INCH IN HEIGHT AND PLACED BELOW THE LETTER "D" IN THE CENTER OF THE COVER.
- STORM DRAIN MANHOLE COVERS CONSTRUCTED PER S.P.P.W.C. STANDARD PLAN 312 SHALL BE CAST WITH THE LETTERS "L.A.C.F.C.D.". THE LETTERS SHALL BE 1 INCH IN HEIGHT AND PLACED BELOW THE LETTER "D" IN THE CENTER OF THE COVER.
- ALL ABOVE GROUND FACILITIES SHALL BE STAMPED WITH THE DRAIN AND LINE NAME. THE LETTERING SHOULD BE 4"BLACK TEXT ON A YELLOW BACKGROUND.

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

EROSION CONTROL NOTES:

- EVERY EFFORT SHOULD BE MADE TO ELIMINATE THE DISCHARGE OF NON-STORMWATER FROM THE PROJECT SITE AT ALL TIMES.
- ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON-SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEETFLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND.
- STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
- FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
- EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON-SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
- TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND.
- SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEEP UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
- ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
- THE FOLLOWING BMPs AS OUTLINED IN, BUT NOT LIMITED TO, THE LATEST EDITION OF THE LACDPW CONSTRUCTION SITE BMP MANUAL (CONSTRUCTION), MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY THE PROJECT ENGINEER OR THE BUILDING OFFICAL):

TEMPORARY SOIL STABILIZATION

- SS-1 SCHEDULING
- SS-2 PRESERVATION OF EXISTING VEGETATION
- SS-3 HYDRAULIC MULCH
- SS-4 HYDROSEEDING
- SS-5 SOIL BINDERS
- SS-6 STRAW MULCH
- SS-7 TEMPORARY COVER AND ROLLED EC PRODUCTS
- SS-8 WOOD MULCHING
- SS-9 EARTH DIKES AND DRAINAGE SWALES
- SS-10 VELOCITY DISSIPATION DEVICES
- SS-11 SLOPE DRAINS
- SS-12 STREAMBANK STABILIZATION

TEMPORARY SEDIMENT CONTROLS

- SC-1 SILT FENCE
- SC-2 SEDIMENT/DESILTING BASIN
- SC-3 SEDIMENT TRAP/CURB CUTBACK
- SC-4 CHECK DAM
- SC-5 FIBER ROLLS
- SC-6 GRAVEL BAG BERM/EARTHEN BERM
- SC-7 STREET SWEEPING
- SC-8 SANDBAG BARRIER
- SC-9 STRAW BALE BARRIER
- SC-10 TEMPORARY DRAINAGE INLET PROTECTION

WIND EROSION CONTROL

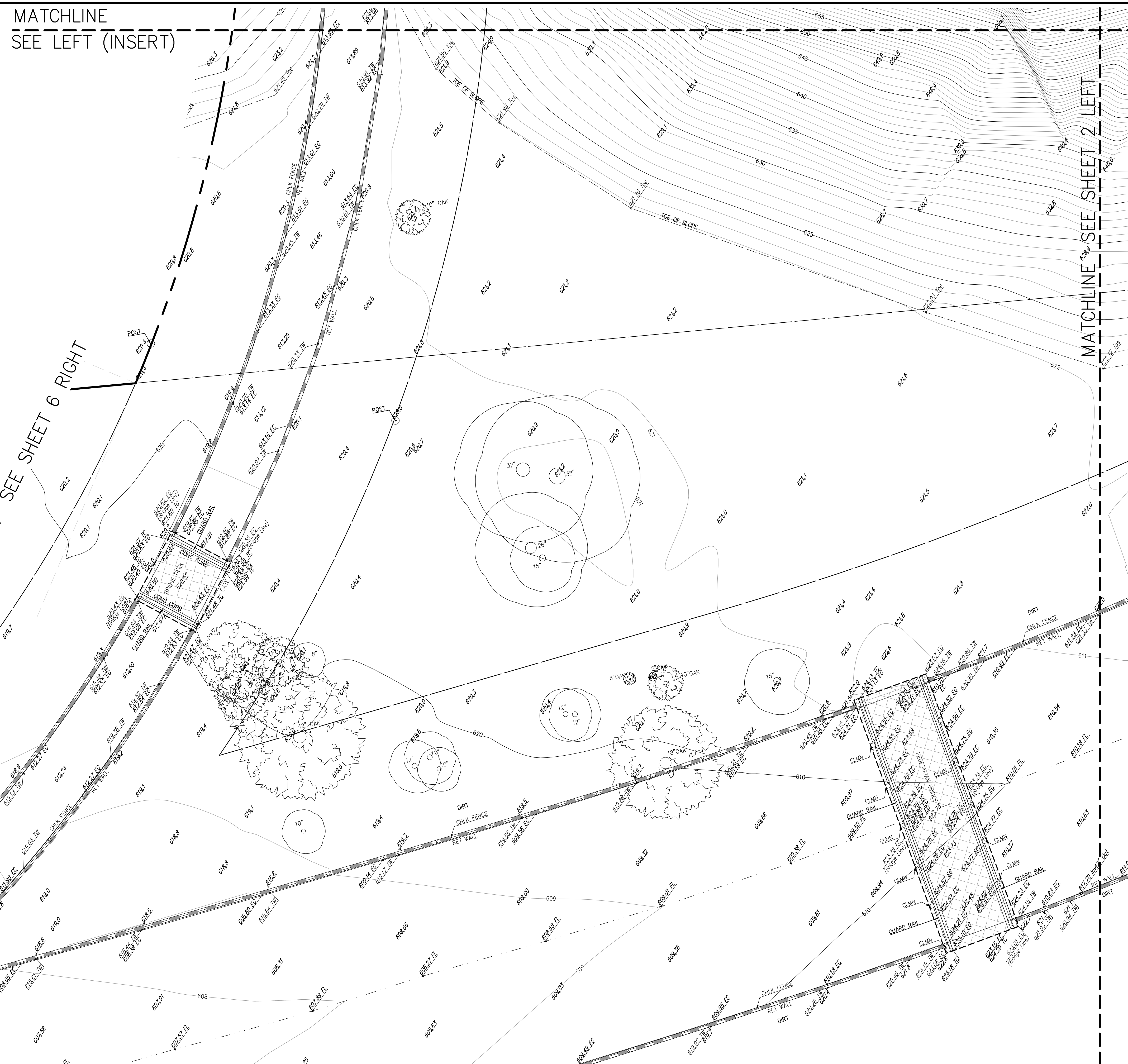
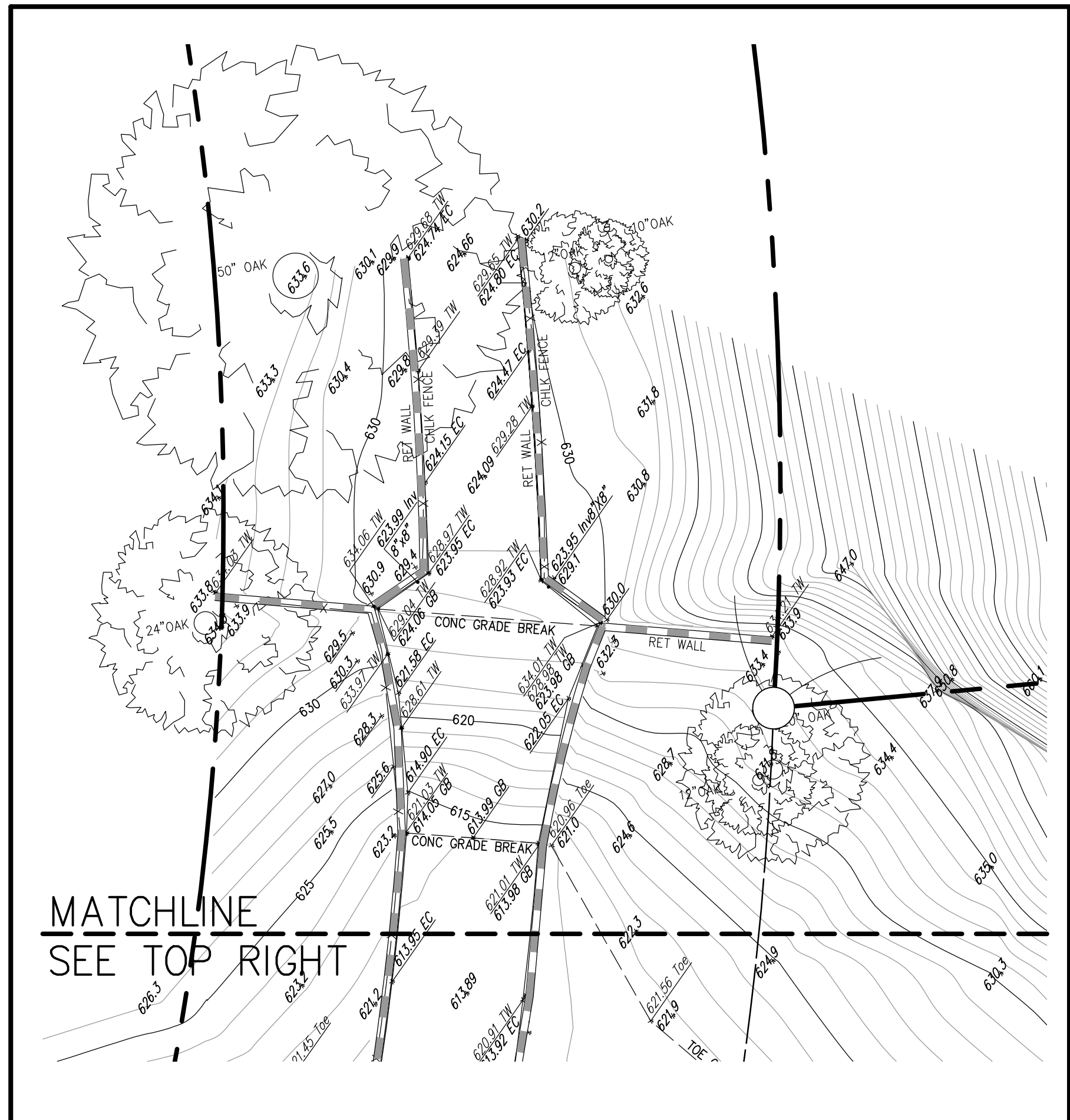
- WE-1 WIND EROSION CONTROL

PUMP/MECHANICAL NOTES FOR THE SAN PASCUAL SITE

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION SITE DURING THE DURATION OF THE PROJECT. ALL DEBRIS, CONSTRUCTION MATERIAL, AND EQUIPMENT AT THE PUMP STATION SHALL BE LOCATED OUT OF THE WAY OF ADJACENT PROPERTY OWNER.
- THE CONTRACTOR SHALL ENSURE APPROPRIATE FLAGGING AND TRAFFIC CONTROL IS IN PLACE TO ENSURE SAFE LOADING AND UNLOADING OF EQUIPMENT AND MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE DURING THE DURATION OF THE PROJECT FOR CLOSING THE SITE OFF FOR VEHICULAR ACCESS. ALL APPLICABLE CALTRANS GUIDELINES SHALL BE ADHERED TO FOR MAINTAINING THE SITE AND INHIBITING VEHICULAR ACCESS INTO THE SITE.
- THE CONTRACTOR SHALL COORDINATE WITH SOUTHERN CALIFORNIA EDISON TO ENSURE BOTH THE PROPER INSTALLATION OF ELECTRICAL SERVICE AND FOR PROTECTING THEIR EXISTING NEARBY UTILITIES. IT IS RECOMMENDED THAT PRIOR TO COMMENCING THE WORK THAT THE CONTRACTOR HAVE 911 UTILITIES LOCATE THE EXISTING UTILITIES AND PERFORM NECESSARY POTHOLE TESTING TO AVOID POTENTIAL CONFLICTS. PLEASE NOTE, THAT IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXISTING UTILITIES AND COORDINATE WITH EXISTING UTILITY COMPANIES TO CONFIRM THE LOCATION OF THEIR FACILITIES WITHIN THE CONSTRUCTION SITE.
- THE CONTRACTOR SHALL FOLLOW LOCAL COUNTY NOISE ORDINANCES FOR ALL WORK ACTIVITY PERFORMED WITHIN RESIDENTIAL AREAS. WORK HOURS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- THE CONTRACTOR SHALL PERFORM A THOROUGH LOCK-OUT/TAG-OUT AT THE END OF EACH WORKDAY. ALL TRENCHED AREAS SHALL BE STEEL PLATED OVER TO AVOID RISKING INJURY OF LOCAL RESIDENCES.
- THE CONTRACTOR SHALL ENSURE OSHA REGULATIONS ARE ADHERED TO DURING CONSTRUCTION. A FIELD SAFETY OFFICER FROM THE CONTRACTOR SHALL MONITOR ALL SITE SAFETY AND ENSURE IT IS UP TO NECESSARY CODES AND REGULATIONS.
- THE ONSITE OWNER/CLIENT REPRESENTATIVE SHALL BE THE ONSITE LIAISON ASSISTING THE CONTRACTOR WITH CONCERNS RAISED BY CONCERNED RESIDENCES. ANY CONCERNS RAISED BY MEMBERS OF THE COMMUNITY SHALL BE FIRST ROUTED THROUGH TO THE DESIGNATED OWNER/CLIENT REPRESENTATIVE.

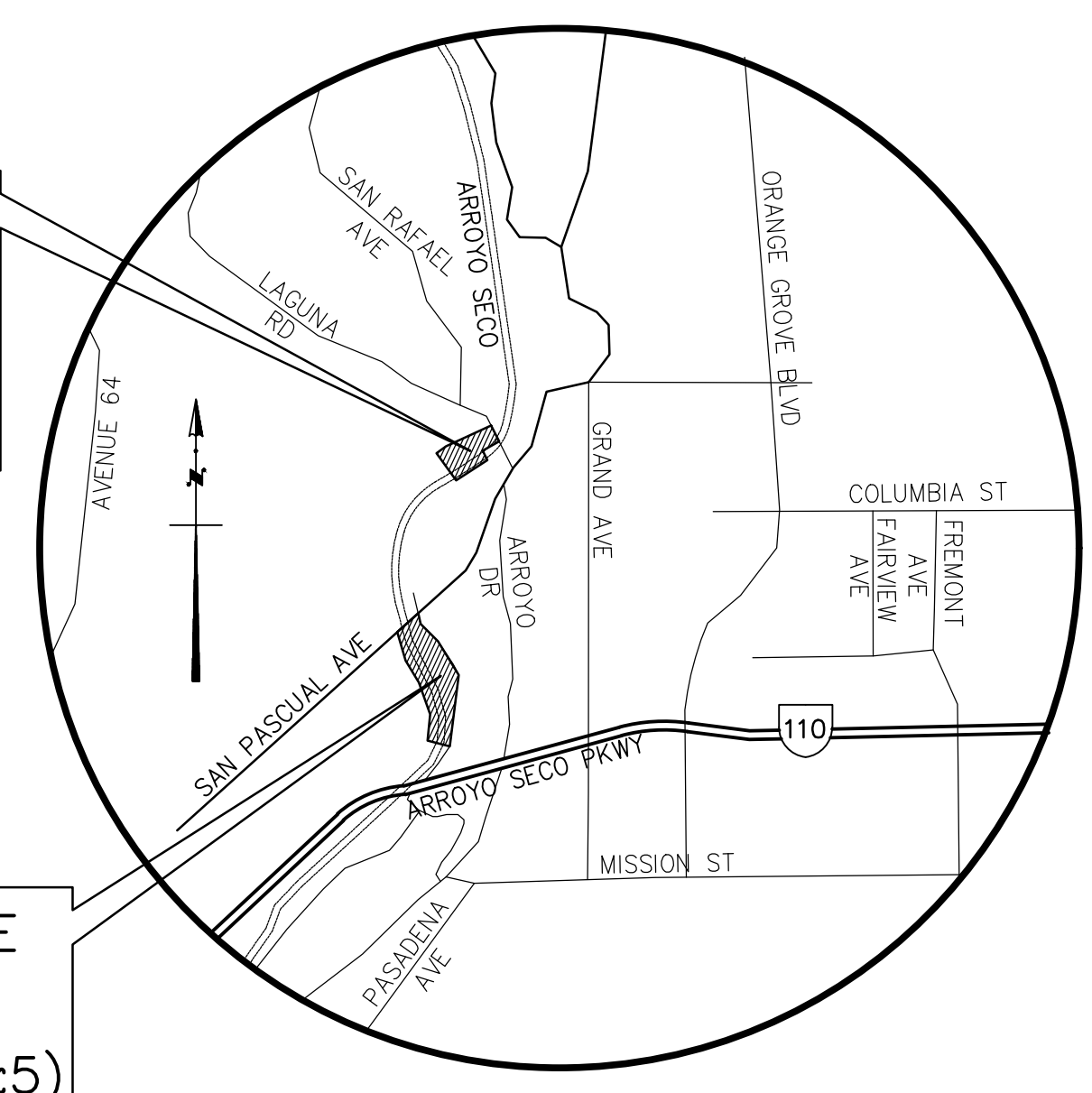
DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
AT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SHEET	G-2
DESIGNED BY							ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	2	OF 95
AT							SHEET TITLE	GENERAL NOTES	
CHECKED BY							SCALE	AS SHOWN	ACCOUNT NUMBER XXXXXX
CAS			AS BUILT					DWG. NO.	

Date: July 6, 2022 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\COMBINED TITLE NOTES DETAILS\G2\_ARROYO\_SECO\_NOTES.DWG



(NORTH)  
PROJECT SITE  
(SHEETS  
1,2,6&7)

PROJECT SITE  
(SOUTH)  
(SHEETS 3,4&5)



VICINITY MAP  
NOT TO SCALE

**LEGEND**

---	PROPERTY / BOUNDARY LINE
---	STREET R/W LINE
---	CURB LINE ( FROM 1"=20' ON TO 1"=200' )
---	CURB LINE ( APPROXIMATE )
---	CENTER LINE
---	FLOW LINE
---	LOT LINE / PARCEL LINE
---	EASEMENT LINE (W/WIDTH)
---	CONTOUR LINE (APPROXIMATE)
---	BUILDING FOOT PRINT LINE
---	OVERHANG LINE
---	CHAIN LINK (CHLK) FENCE LINE
---	BARB WIRE FENCE LINE
---	WOODEN (WON) FENCE LINE
---	WROUGHT IRON (WI) FENCE LINE
---	RETAINING (RET) / SCREEN WALL (AS NOTED)
---	GUARD RAIL
---	EDGE OF ASPHALT PAVING
---	ASPH PAVING
---	CONC PAVING
---	AREA DRAIN
---	CATCH BASIN W/ACCESS HOLE
---	COMMUNICATION/ELECTRICAL/FIBER OPTIC/GAS MANHOLE
---	SEWER/STORMRAIN/UNKNOWN/WATER MANHOLE
---	COMMUNICATION/POWER/UTILITY POLE
---	COMMUNICATION/POWER/UTILITY POLE AND CONDUIT
---	SIGN (ALL KINDS)
---	QUIV ANCHOR
---	GUY POLE
---	STREET LIGHT
---	STREET LIGHT W/ARM
---	STREET LIGHT W/ARM ON POWER POLE
---	TRAFFIC SIGNAL W/ARM
---	TRAFFIC SIGNAL W/STREET LIGHT
---	TRAFFIC SIGNAL
---	PEDESTRIAN TRAFFIC SIGNAL
---	PEDESTRIAN CROSSING PUSH BUTTON
---	YARD LIGHT
---	GARDEN LIGHT
---	PARKING LIGHT
---	FIRE HYDRANT
---	DOWNSPOUT
---	FIRE DEPARTMENT CONNECTION
---	POST INDICATOR VALVE
---	DIRECTION OF WATER DRAINAGE FLOW
---	ELECTRICAL/GAS/UNKNOWN/WATER METER
---	AIR/GAS/IRRIGATION/PETROLEUM/UNKNOWN/WATER VALVE
---	COMMUNICATION/ELECTRICAL/FIBER OPTIC VAULT
---	GAS/IRRIGATION/UNKNOWN/WATER VAULT
---	COMMUNICATION/ELECTRICAL/GAS RISER
---	PETROLEUM/UNKNOWN/WATER RISER
---	COMMUNICATION/ELECTRICAL/IRRIGATION/TRAFFIC SIGNAL PANEL
---	COMMUNICATION/ELECTRICAL/UNKNOWN/TRAFFIC SIGNAL CABINET
---	COMMUNICATION/ELECTRICAL/FIBER OPTIC PULL BOX
---	STREET LIGHT/TRAFFIC SIGNAL PULL BOX
---	GAS/IRRIGATION/UNKNOWN BOX
---	AIR/COMMUNICATION/ELECTRICAL/FIRE STRUCTURE
---	GAS/IRRIGATION/PETROLEUM/SANITARY SEWER STRUCTURE
---	STORM DRAIN/STREET LIGHT/UNKNOWN/WATER STRUCTURE
---	AIR/COMMUNICATION/ELECTRICAL/PAINT MARK
---	GAS/IRRIGATION/SANITARY SEWER PAINT MARK
---	STORM DRAIN/UNKNOWN/WATER PAINT MARK
---	COMPACT/HANDY/CAP/STANDARD PARKING STALL
---	DRAIN INLET
---	EVERGREEN TREE W/TRUNK DIAMETER
---	PALM TREE W/TRUNK DIAMETER
---	DECIDUOUS TREE IN WELL W/TRUNK DIAMETER
---	PLANTER
---	GUARD POST
---	APPROACH
---	DRIVEWAY
---	RAILROAD
---	BACKFLOW PREVENTER
---	CLEAN OUT
---	LOCATION OF BUILDING HEIGHT MEASUREMENTS
---	UNDERGROUND
---	TRANSFORMER
---	IRRIGATION SPRINKLER HEAD
---	SECURITY/TRAFFIC CAMERA
---	FIRE DEPARTMENT CONNECTION
---	STREET CENTERLINE/CONTROL LINE
---	PROPERTY LINE
---	TOPOGRAPHIC SPOT ELEVATION, NO LEADER
---	BACK OF WALK ELEVATION
---	EDGE OF CONCRETE ELEVATION
---	EDGE OF GUTTER ELEVATION
---	EDGE OF PAVEMENT ELEVATION
---	FLOW LINE ELEVATION
---	PIPE INVERT ELEVATION
---	MANHOLE RIM ELEVATION
---	TOP OF BERM ELEVATION
---	TOP OF CURB ELEVATION
---	TOP OF FOOTING ELEVATION
---	TOP OF GRADE ELEVATION
---	TOP OF WALL ELEVATION

**CONTROL NOTES:**

**HORIZONTAL CONTROL :**

STATE PLANE COORDINATES, CALIFORNIA COORDINATE SYSTEM ZONE 5 BASED ON NAD83 (2011) EPOCH: 2017.50. POSITIONAL VALUES SHOWN HEREON ARE BASED UPON LOCAL CONTROL POINTS AND DERIVED FROM THE GPS STATIC OBSERVATIONS UTILIZING DATA FROM SOUTHERN CALIFORNIA INTEGRATED GPS NETWORK (SIGON) CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS).

ELSC	34-01-47.044882	118-12-30.371381	61.1533	CTS /CORS
JPLM	34-12-17.356925	118-10-23.631516	423.9816	CTS /CORS
SILK	34-06-10.307448	118-15-49.948916	106.2168	CTS /CORS
VDCY	34-10-42.839226	118-13-12.013563	318.1710	CTS /CORS

**VERTICAL CONTROL :**

VERTICAL VALUES SHOWN HEREON ARE BASED UPON NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29) UTILIZING CITY OF PASADENA BENCHMARKS LISTED BELOW:

BENCHMARK NO: 616-48

CITY OF PASADENA BENCHMARK ON SAN RAFAEL AVE BRIDGE MON 1.5' E OF CURB ARROYO BLVD 6' N OF CURB PROD OF SAN RAFAEL

ELEVATION : 673.18 FEET

**COMMENTS:**

BOUNDARY LINES	SEE NOTE ON SHEET 8.
LEGAL DESCRIPTION	NONE PROVIDED.
EASEMENTS	NONE PLOTTED.
TITLE REPORT	NONE PROVIDED.
BASIS OF BEARINGS	NONE PROVIDED.
TOPOGRAPHY	BY GROUND SURVEY AND COMPLIES WITH THE NATIONAL MAP STANDARDS.
UTILITIES	NO UNDERGROUND UTILITIES WERE PLOTTED. ONLY SURFACE VISIBLE SIGNS OF UTILITIES ARE PLOTTED.

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

**SURVEYOR'S NOTES**

THIS SURVEY HAS BEEN PREPARED FOR DESIGN PURPOSES

- BEFORE USING THIS MAP FOR DESIGN OR CONSTRUCTION PURPOSES, ALL EASEMENTS OF RECORD AND SETBACK LINES DEFINED IN COVENANTS, CONDITIONS AND RESTRICTIONS OF RECORD AFFECTING THIS PROPERTY SHOULD BE PLOTTED ON THIS MAP FROM A CURRENT TITLE REPORT. IF NO TITLE REPORT WAS FURNISHED, OUR CLIENT IS URGED TO FURNISH A CURRENT TITLE REPORT SO THAT THESE EASEMENT AND SETBACK LINES OF RECORD CAN BE PLOTTED ON THIS MAP.
- THIS MAP SHOULD BE EXPANDED TO MEET ALTA REQUIREMENTS IF FINANCING IS TO BE OBTAINED FOR THE PROJECT, REQUIRING AN EXTENDED COVERAGE POLICY OF TITLE INSURANCE.
- THIS SURVEY DOES NOT INCLUDE EASEMENTS EXCEPT THOSE SPECIFICALLY DELINEATED HEREON.
- IF UNDERGROUND PUBLIC UTILITIES AND OTHER SUBSTRUCTURES, ZONES, SET BACK AND STREET WIDENING DATA ARE SHOWN HEREON, IT IS FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM A GENERAL REQUEST AT THE LOCAL AGENCY'S PUBLIC COUNTER AND/OR OTHER SOURCES NOT CONNECTED WITH THIS COMPANY. NO REPRESENTATION IS MADE AS TO THE ACCURACY, CURRENTCY OR COMPLETENESS OF SAID INFORMATION AND ANY USERS OF SAID INFORMATION IS URGED TO CONTACT THE UTILITY OR LOCAL AGENCY DIRECTLY.

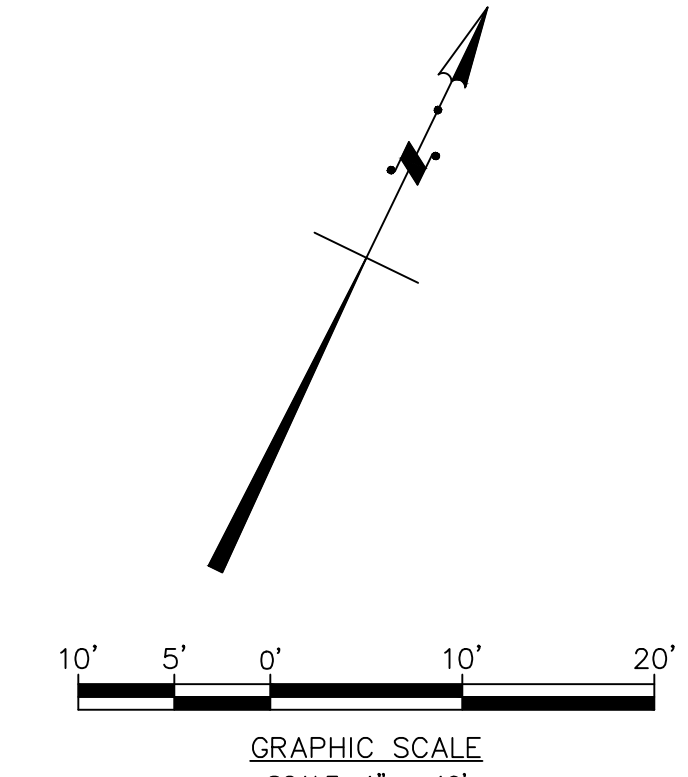
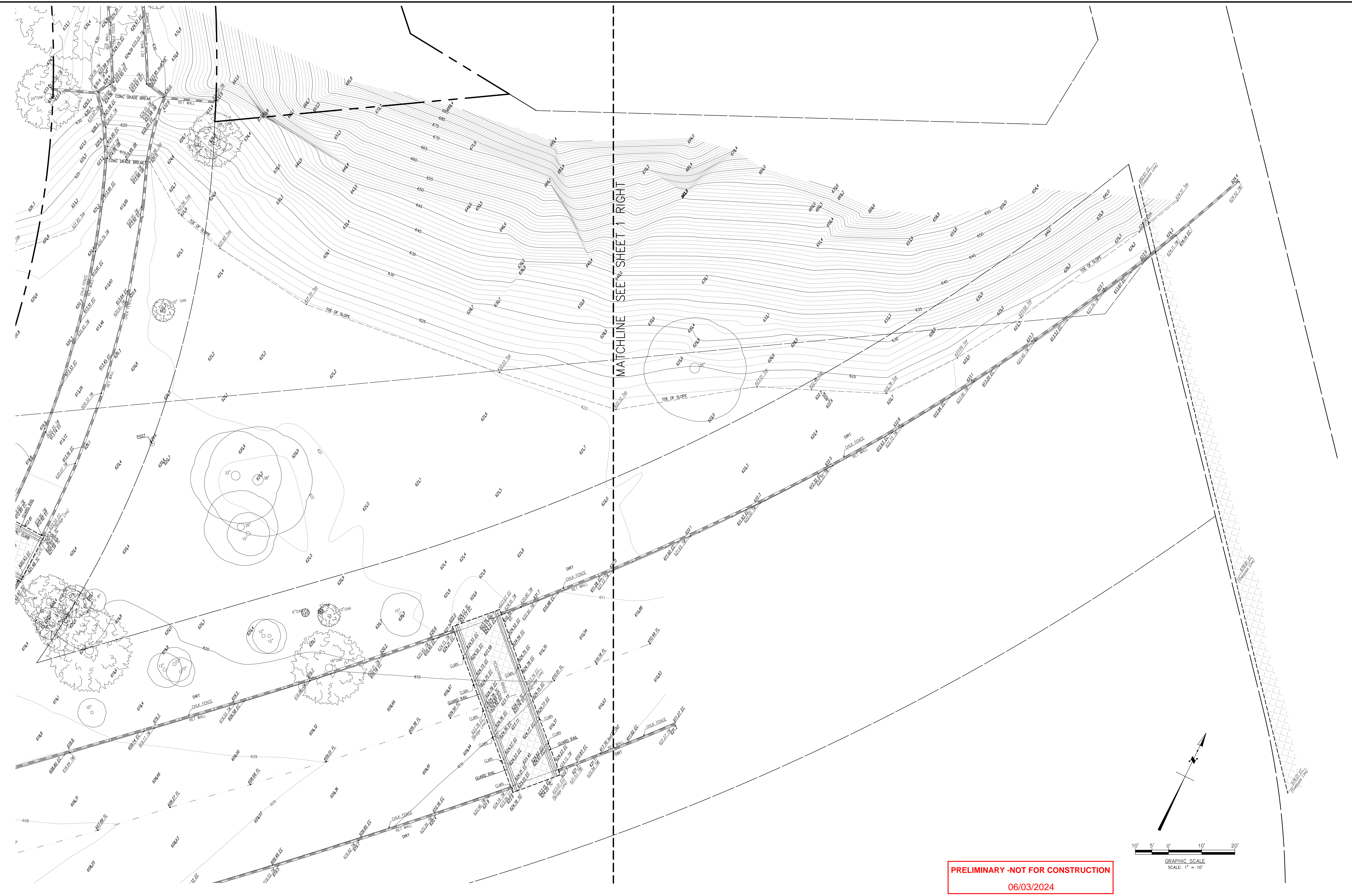
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	DRAWN	BBH							
	CHECKED	DLR	9/28/22	SHOW ADJACENT TRACT BOUNDARY NEAR NORTH PROJECT SITE (SHEET 8)	BBH	DLR			
	REV	DATE	DESCRIPTION	BY	APPD				

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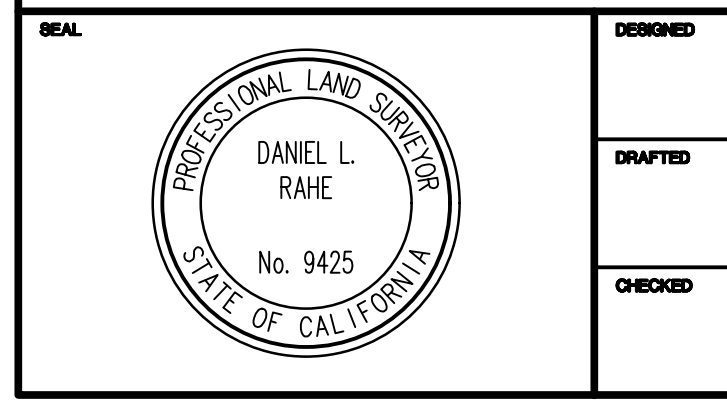
DESIGN SURVEY FOR:  
**CRAFTWATER ENGINEERING, INC.**  
ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT  
IN THE LOWER ARROYO SECO  
IN THE CITY OF PASADENA COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE:	MAY 2, 2022	SHEET:	V-1
SCALE:	1" = 10'		3
PROJECT:	1CR120100 T100		97

REF:



**PRELIMINARY - NOT FOR CONSTRUCTION**  
 06/03/2024



REV	DATE	DESCRIPTION	BY	APPD
DESIGNED			BBH	
DRAWN			BBH	
CHECKED	9/28/22	SHOW ADJACENT TRACT BOUNDARY NEAR NORTH PROJECT SITE (SHEET 8)	BBH	DLR
	6/24/22	ADDITIONAL SURVEY AREA (SEE SHEETS 6 & 7)	ASW	DLR
	6/24/22	ADDITIONAL SURVEY AREA (SEE SHEET 5) & OAK TREES	ASW	DLR

BENCHMARK	ADJUSTMENT
( SEE VERTICAL NOTES ON SHEET 1 )	

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DESIGN SURVEY FOR:

CRAFTWATER ENGINEERING, INC.

ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT  
 IN THE LOWER ARROYO SECO

IN THE CITY OF PASADENA COUNTY OF LOS ANGELES STATE OF CALIFORNIA

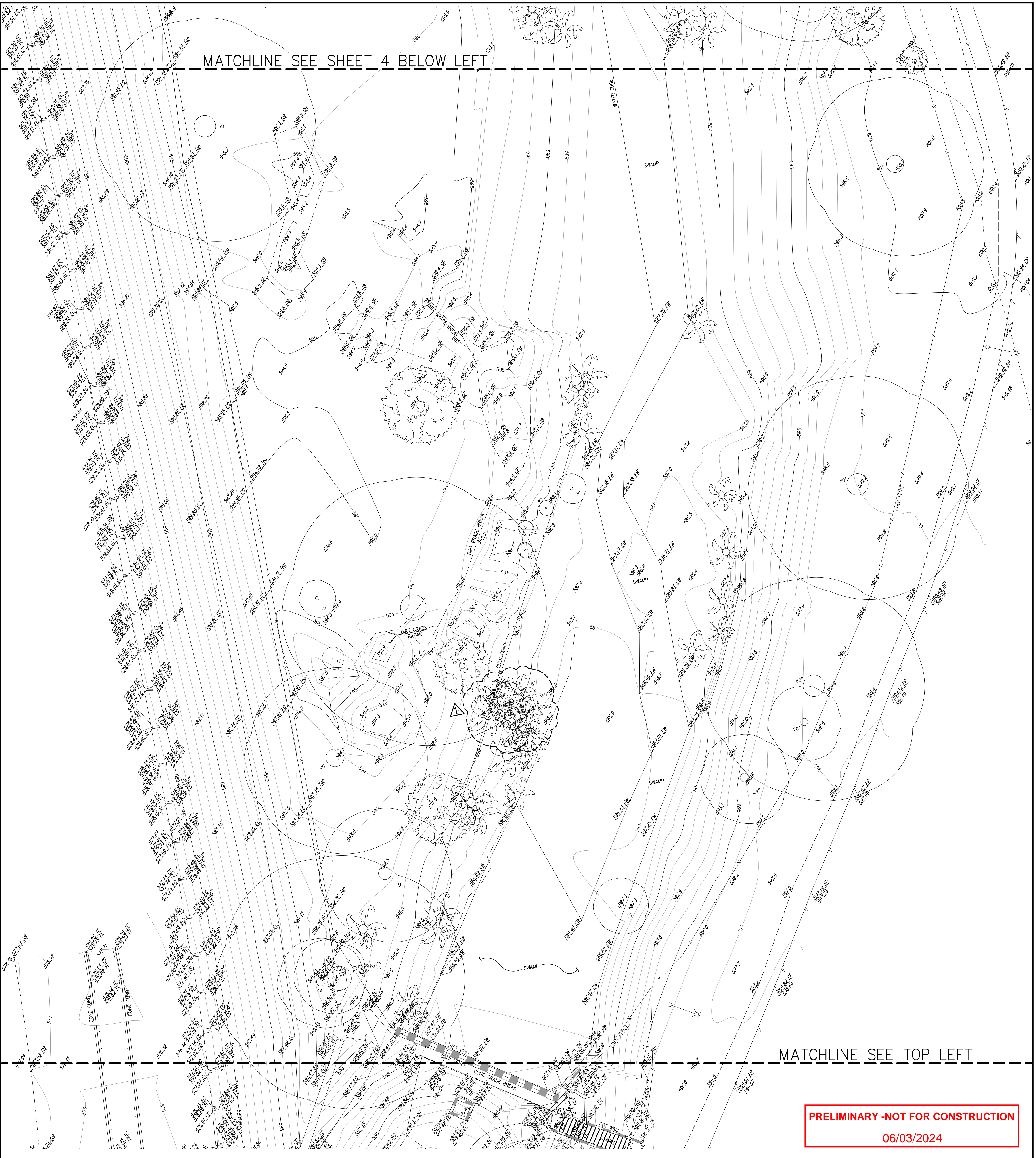
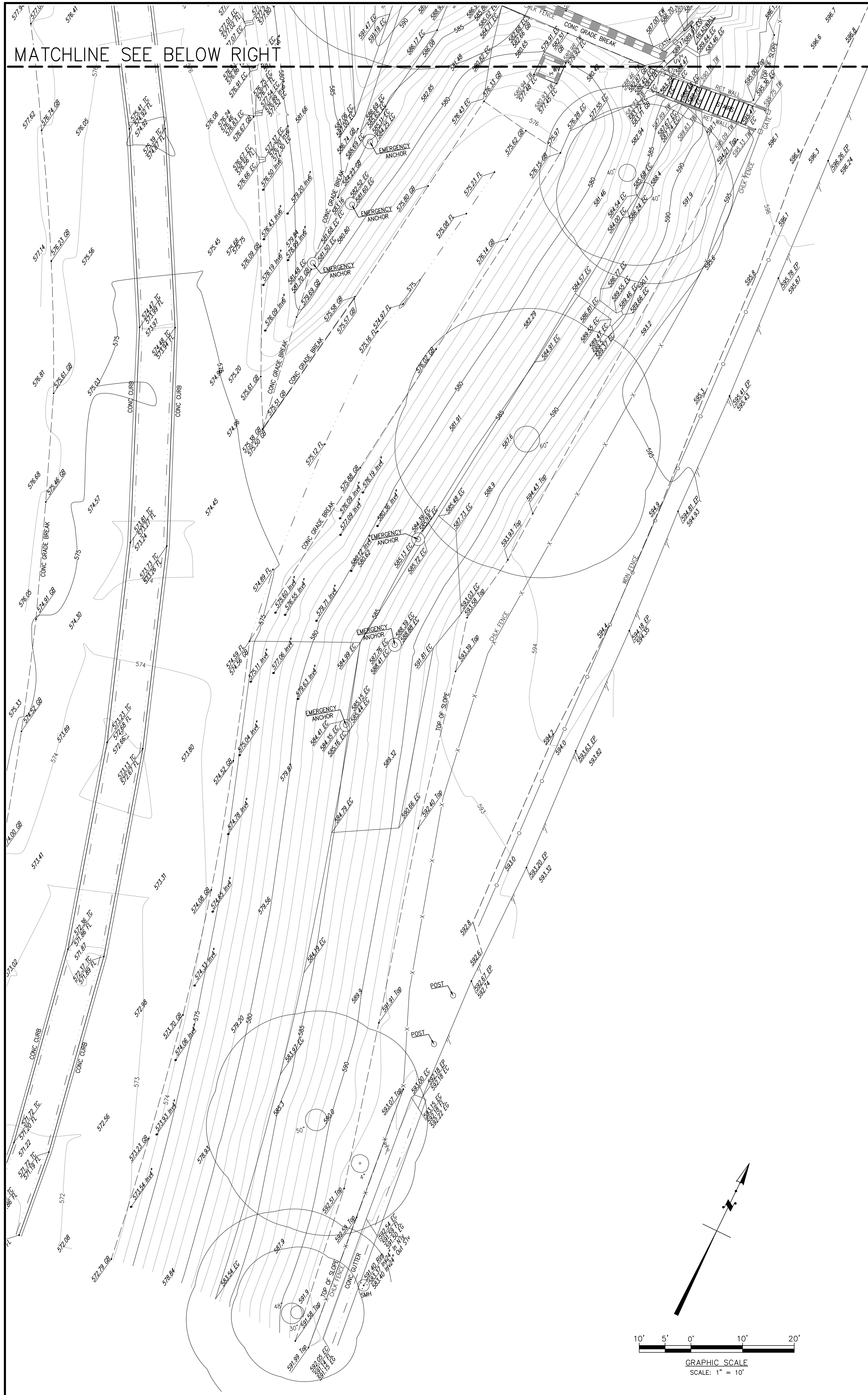
DATE:	MAY 2, 2022	DRAWN:	V-2
SCALE:	1" = 10'	CHECKED:	4
PROJECT NUMBER:	1CRA120100 T100	DATE:	06/03/2024
			97

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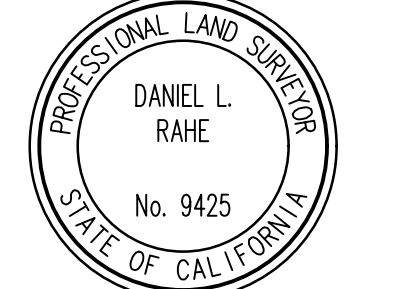
MATCHLINE SEE BELOW RIGHT

MATCHLINE SEE SHEET 4 BELOW LEFT

MATCHLINE SEE TOP LEFT



**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

	DESIGNED	BBH						
	DRAWN	BBH						
	CHECKED	DLR	9/28/22	SHOW ADJACENT TRACT BOUNDARY NEAR NORTH PROJECT SITE (SHEET 8) ADDITIONAL SURVEY AREA (SEE SHEETS 6 & 7)	ASW	DLR		
	REV	DATE	DESCRIPTION	BY	APPD			

( SEE VERTICAL NOTES ON SHEET 1 )

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REVISION DATE: Oct. 03, 2022 - 15:45:25 DWG Name: \\VORAI20100\SURVEY\DESIGN\SHEETS\VL-00501.dwg Updated By: brianhebron

DESIGN SURVEY FOR:

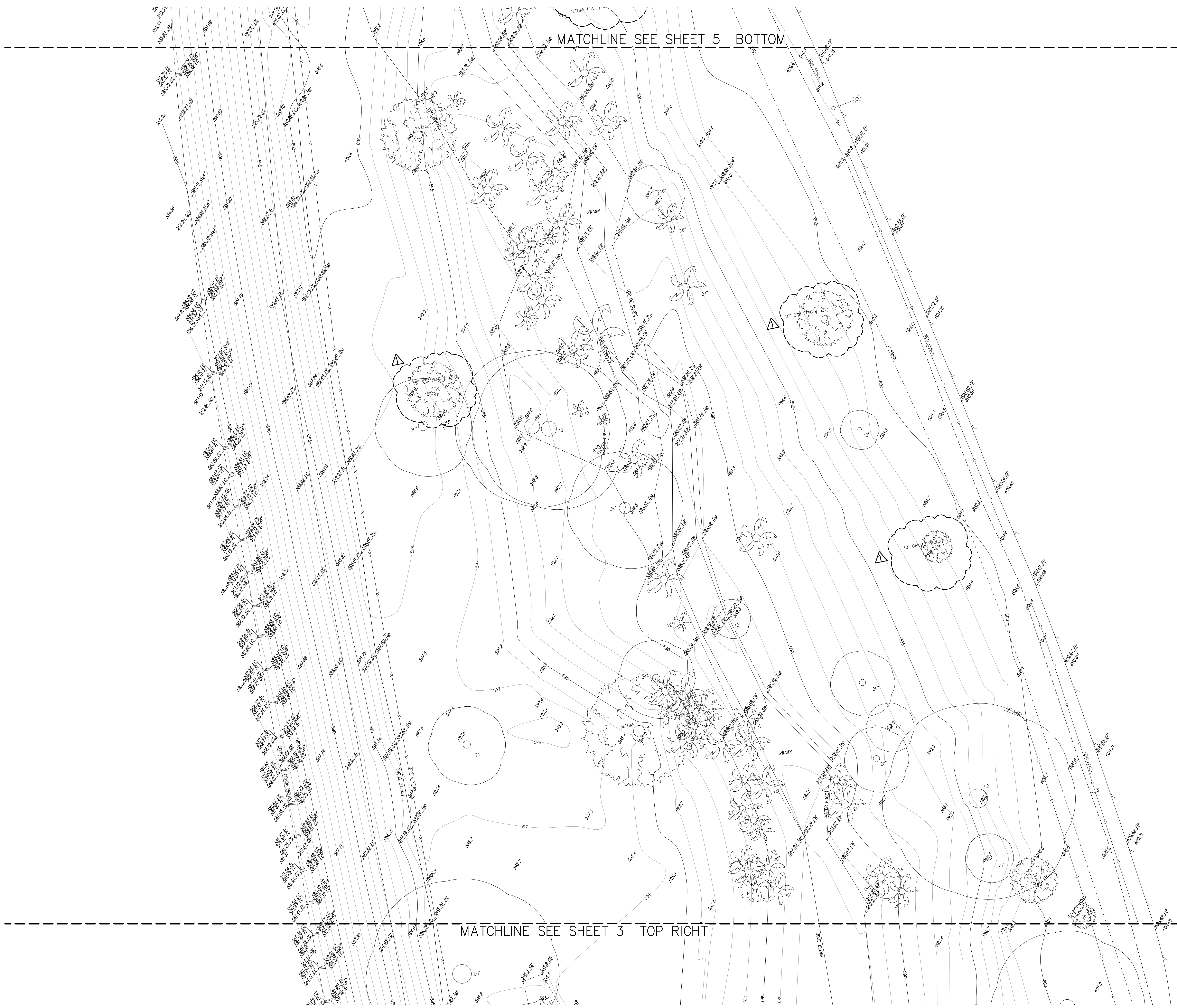
**CRAFTWATER ENGINEERING, INC.**  
ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT  
IN THE LOWER ARROYO SECO

IN THE CITY OF PASADENA COUNTY OF LOS ANGELES STATE OF CALIFORNIA

DATE:	MAY 2, 2022	SHEET:	V-3
SCALE:	1" = 10'		5
PROJECT NUMBER:	1CRA120100 T100		97

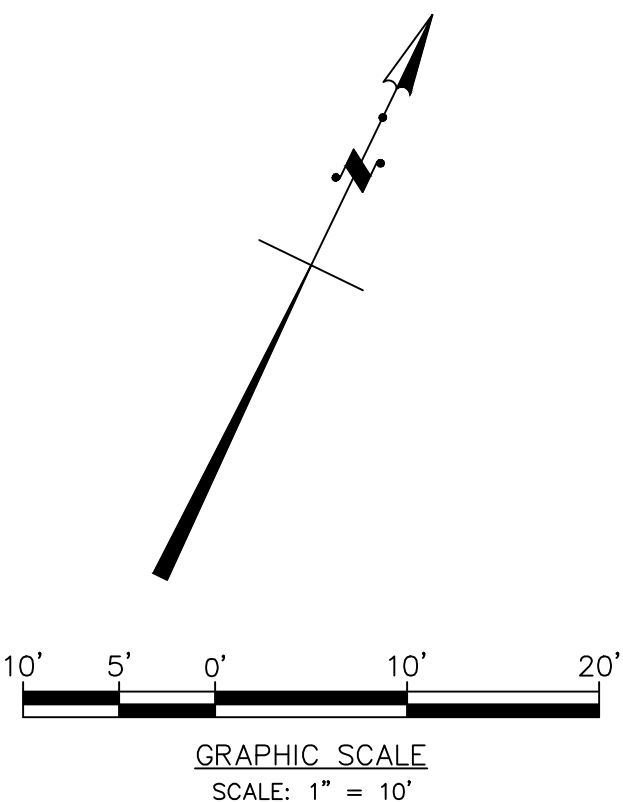
REF:

MATCHLINE SEE SHEET 5 BOTTOM



MATCHLINE SEE SHEET 3 TOP RIGHT

PRELIMINARY - NOT FOR CONSTRUCTION  
06/03/2024



DESIGNED	DATE	DESCRIPTION	BY	APPD
BBH				
DRAFTED				
BBH				
CHECKED	9/28/22	SHOW ADJACENT TRACT BOUNDARY NEAR NORTH PROJECT SITE (SHEET 8)	BBH	DLR
	6/24/22	ADDITIONAL SURVEY AREA (SEE SHEETS 6 & 7)		
		ADDITIONAL SURVEY AREA (SEE SHEET 5) & OAK TREES	ASW	DLR
REV	DATE	DESCRIPTION	BY	APPD

REMARK	ADJUSTMENT
( SEE VERTICAL NOTES ON SHEET 1 )	

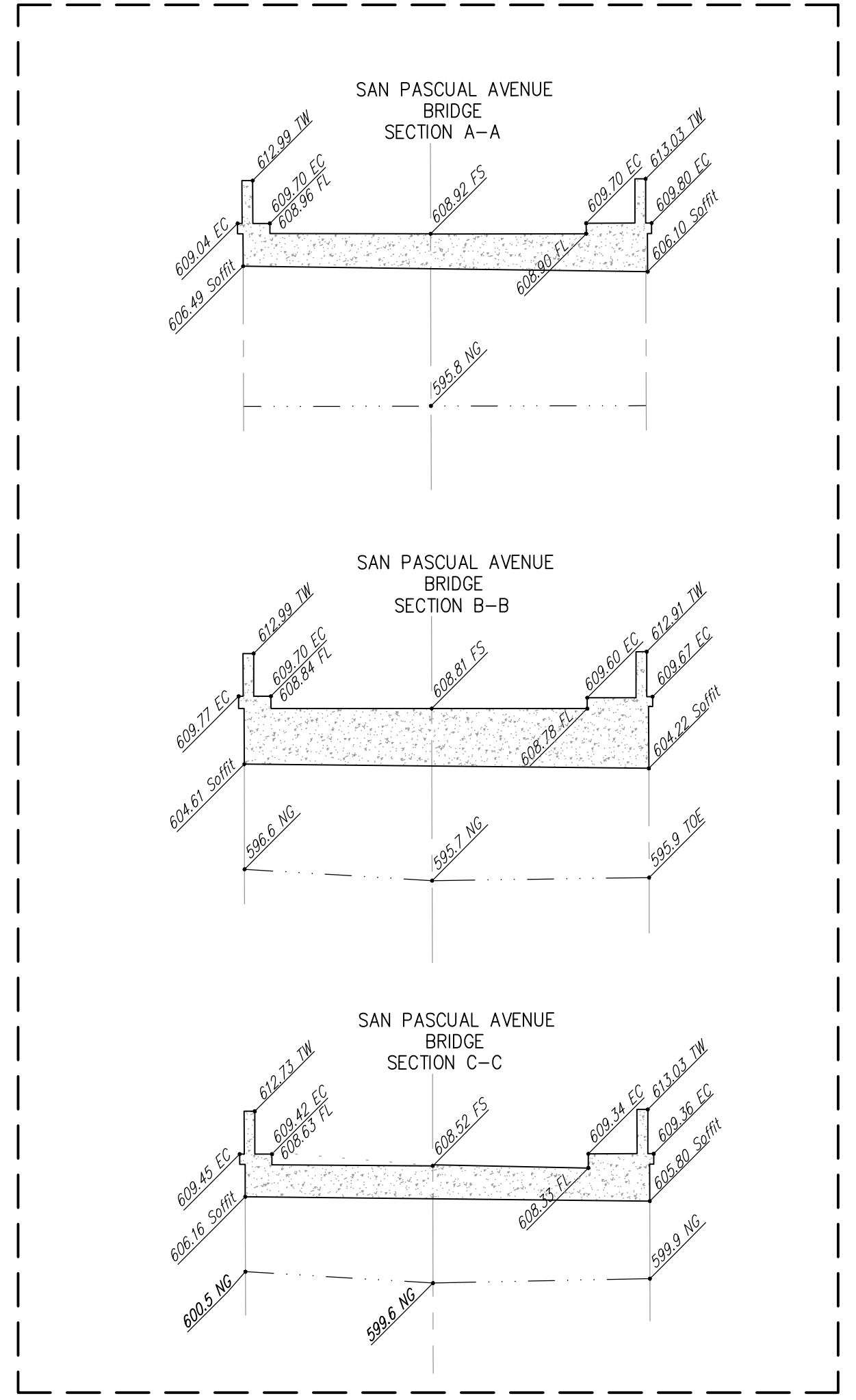
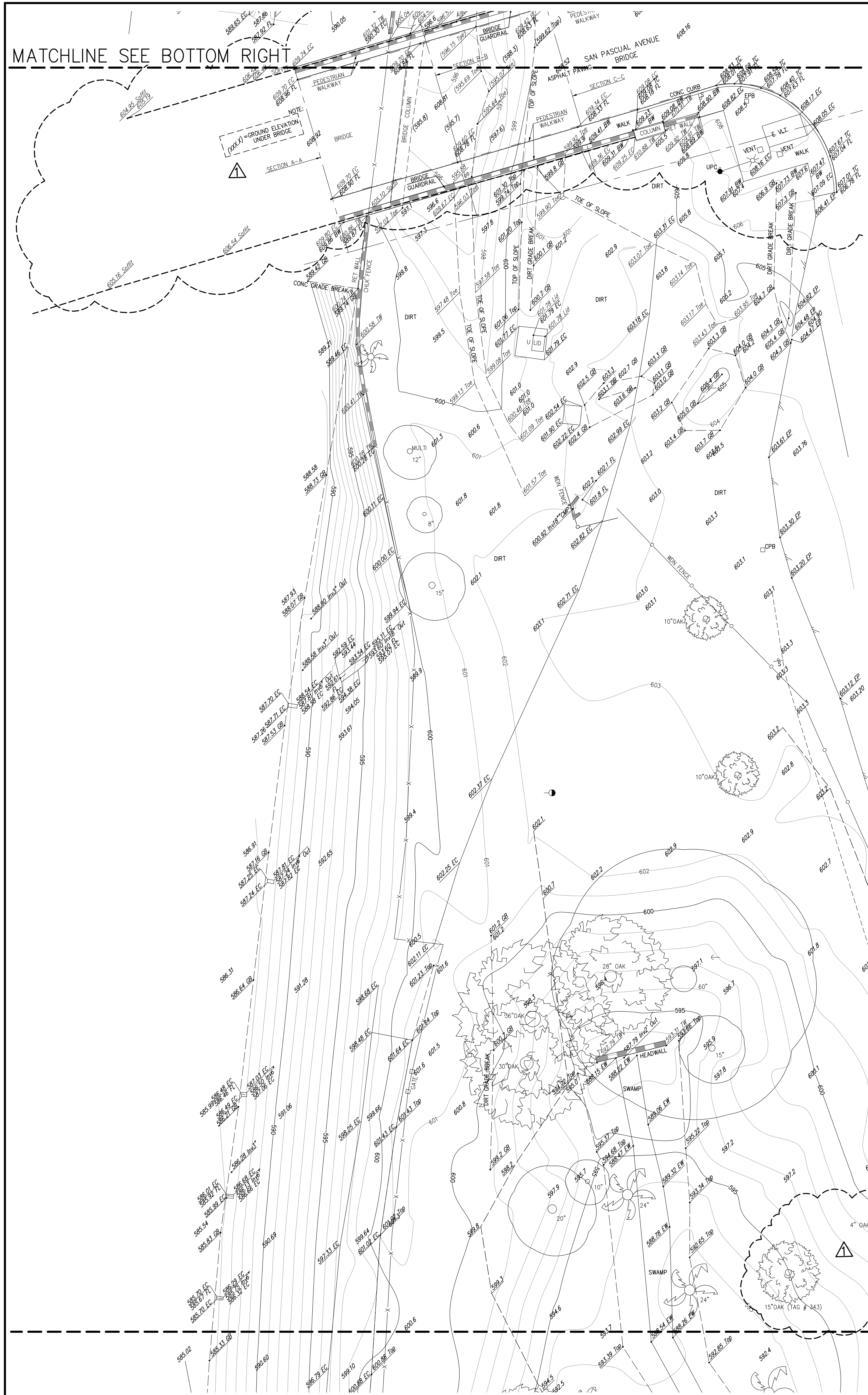
**PSOMAS**  
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DESIGN SURVEY FOR:  
**CRAFTWATER ENGINEERING, INC.**  
 ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT  
 IN THE LOWER ARROYO SECO  
 IN THE CITY OF PASADENA COUNTY OF LOS ANGELES STATE OF CALIFORNIA

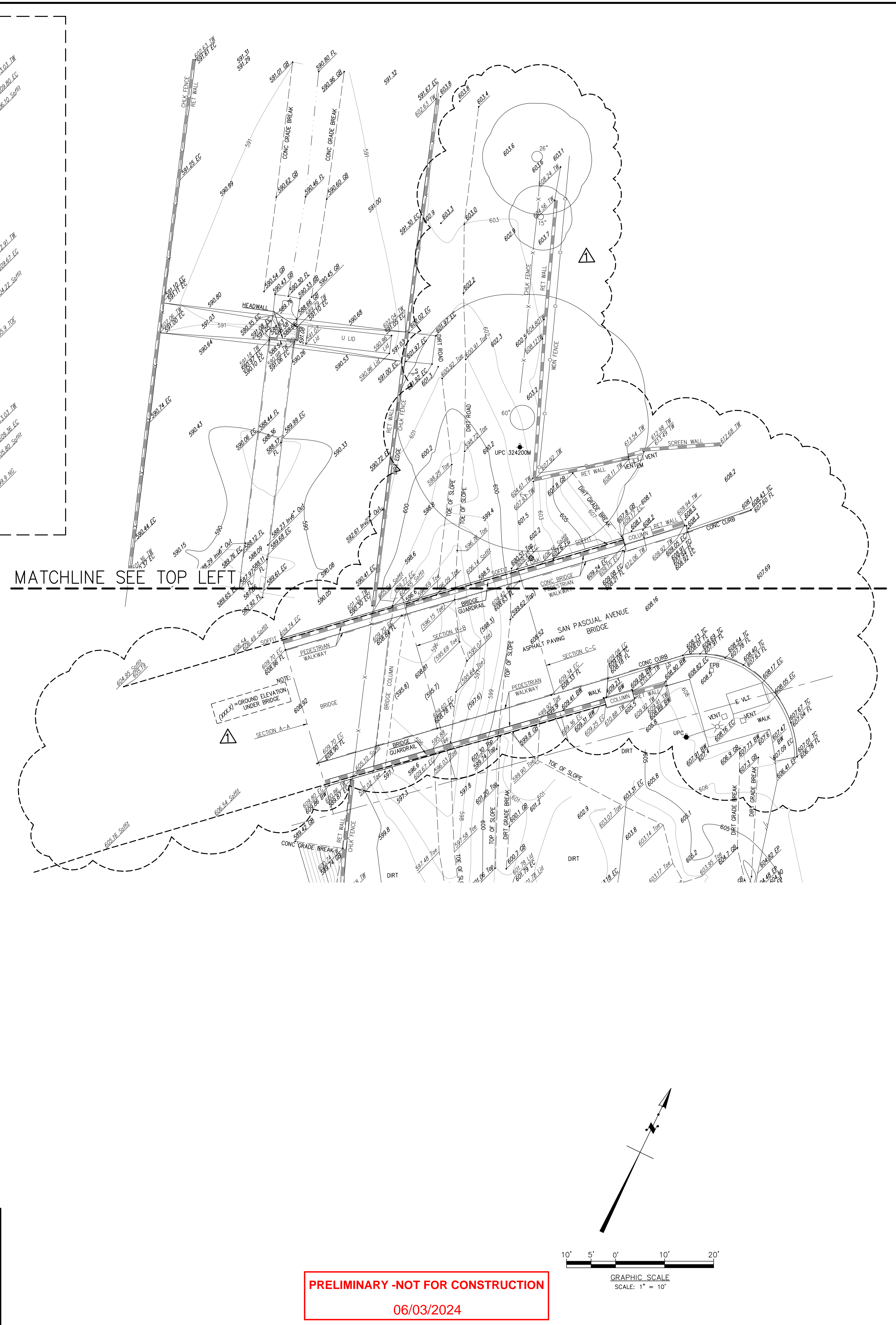
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MAY 2, 2022	V-4
SCALE 1" = 10'	6
PROJECT NUMBER 1CRA120100 T100	97

REF:

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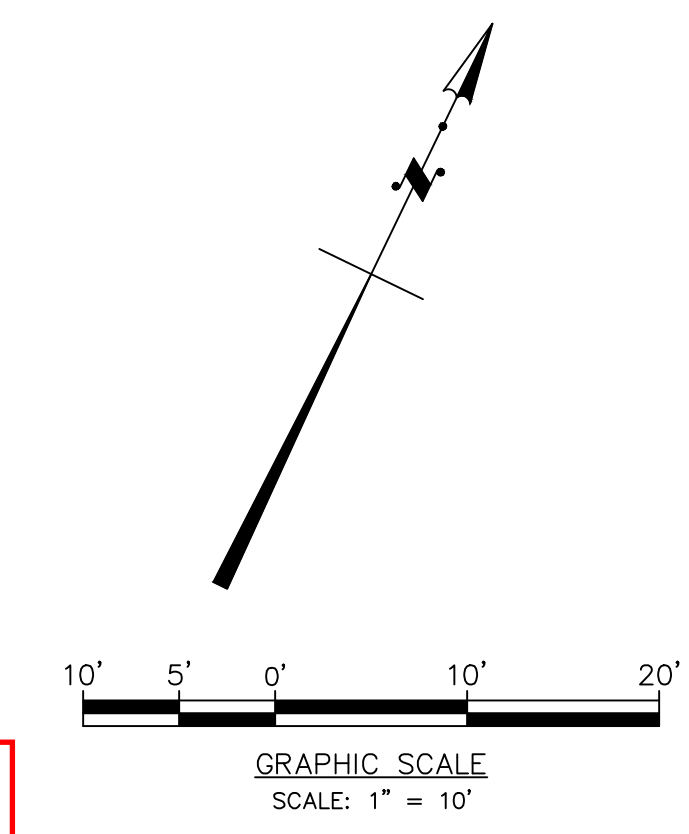


MATCHLINE SEE TOP LEFT



MATCHLINE SEE SHEET 4 TOP

**PRELIMINARY - NOT FOR CONSTRUCTION**  
**06/03/2024**



	DESIGNED	BBH					
	DRAWN	BBH					
	CHECKED	DLR	9/28/22	SHOW ADJACENT TRACT BOUNDARY NEAR NORTH PROJECT SITE (SHEET 8) ADDITIONAL SURVEY AREA (SEE SHEETS 6 & 7)	ASW	DLR	
	REV	DATE	DESCRIPTION	BY	APPD		

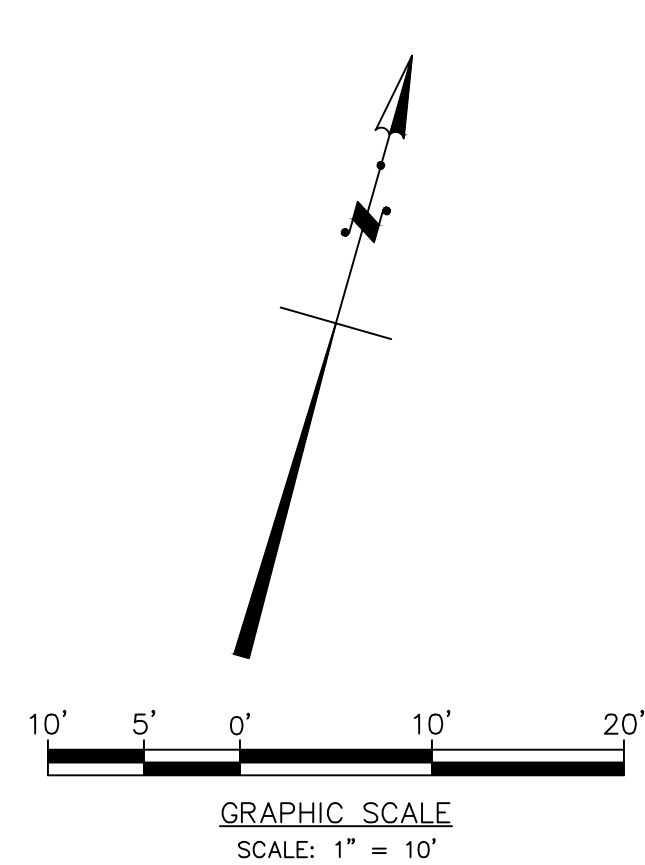
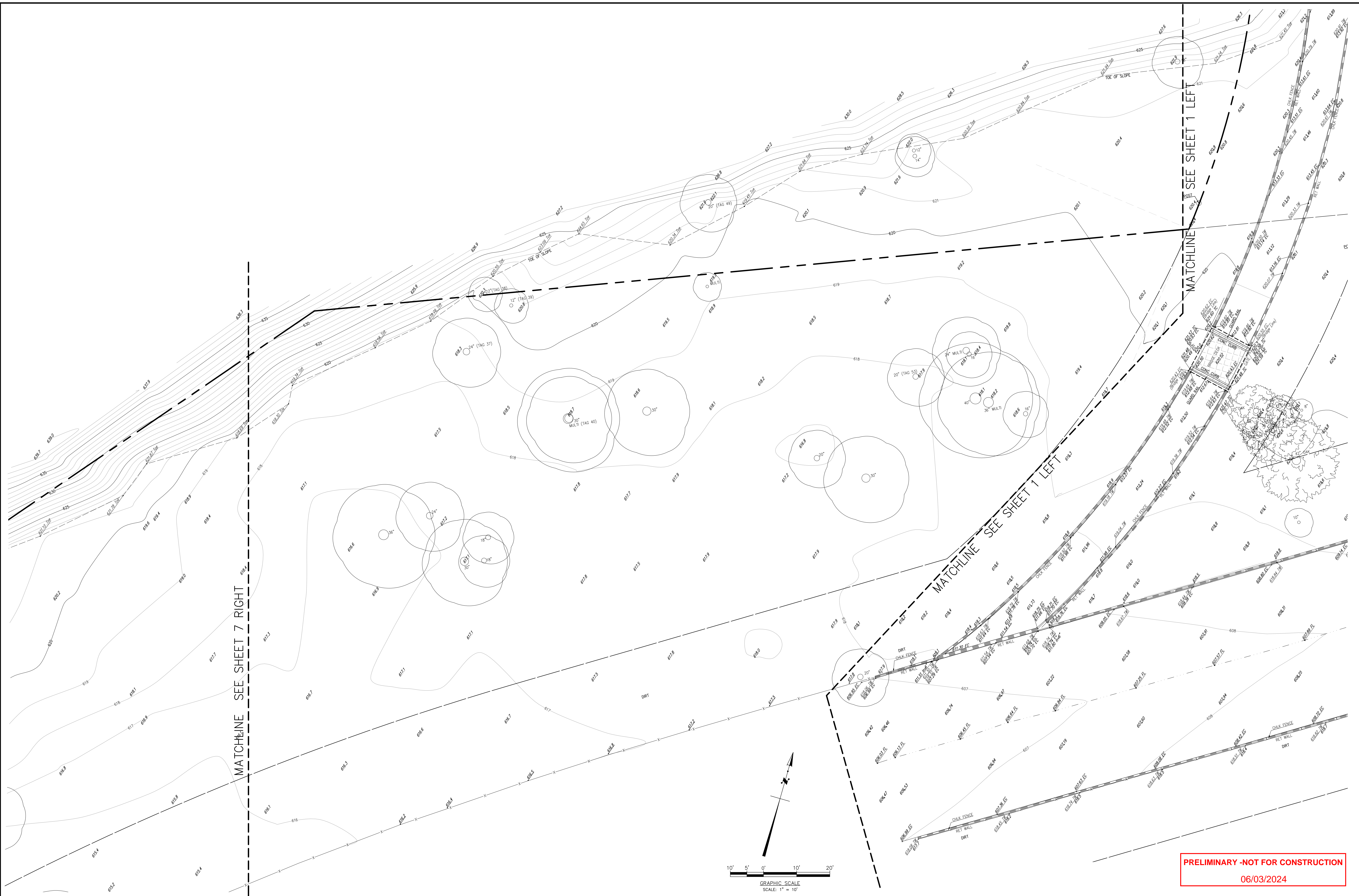
( SEE VERTICAL NOTES ON SHEET 1 )

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 Los Angeles, CA 90071  
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DESIGN SURVEY FOR:	DATE:	Sheet:
CRAFTWATER ENGINEERING, INC.	MAY 2, 2022	V-5
ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	SCALE:	7
IN THE CITY OF PASADENA COUNTY OF LOS ANGELES STATE OF CALIFORNIA	1" = 10'	97
	PROJECT NUMBER:	
	1CRA120100 T100	

REF:

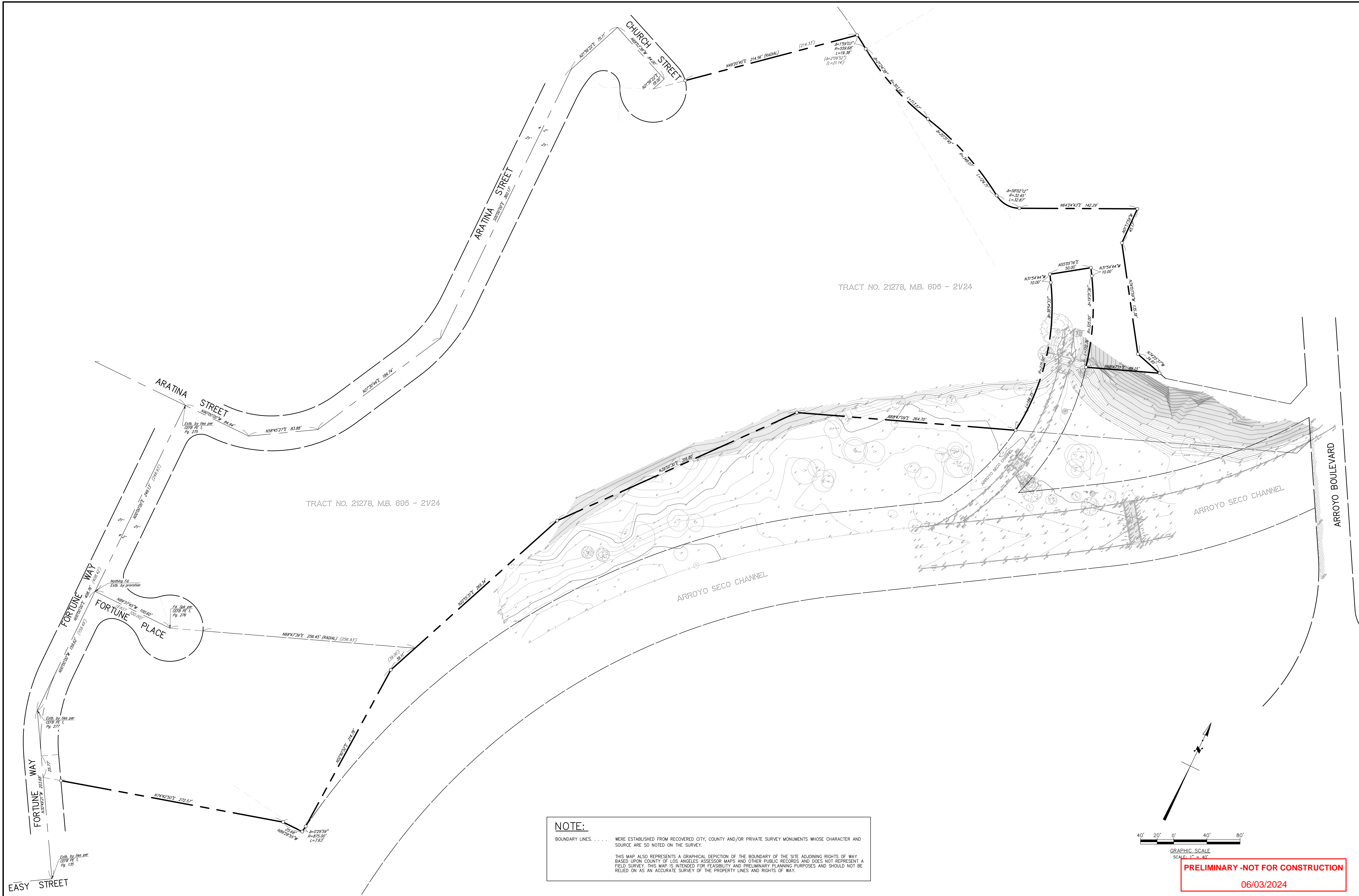


**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

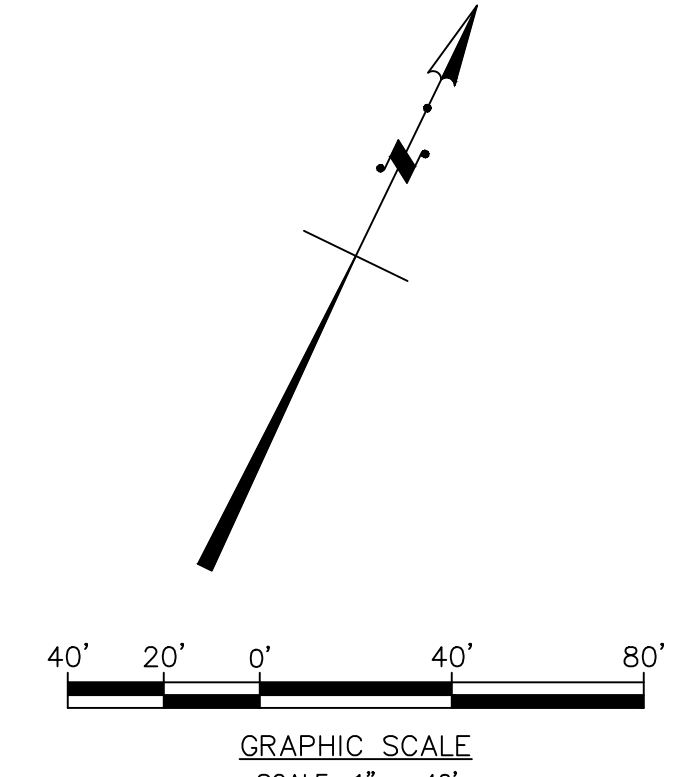
	DESIGNED	BBH				<b>PSOMAS</b> 555 South Flower Street, Ste. 4300 Los Angeles, CA 90071 (213) 223-1400 (213) 223-1444 (FAX) www.psomas.com	DESIGN SURVEY FOR:			DATE:	SHEET
	DRAWN	BBH					CRAFTWATER ENGINEERING, INC.			MAY 2, 2022	V-6
	CHECKED	DLR	9/28/22	SHOW ADJACENT TRACT BOUNDARY NEAR NORTH PROJECT SITE (SHEET 8)	BBH		DLR	ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT			SCALE:
REV	DATE	DESCRIPTION	BY	APPD	DATE	IN THE CITY OF PASADENA COUNTY OF LOS ANGELES STATE OF CALIFORNIA			PROJECT NUMBER:	97	
					Oct. 03, 2022 - 15:45:25	REF:			1CRA120100 T100		







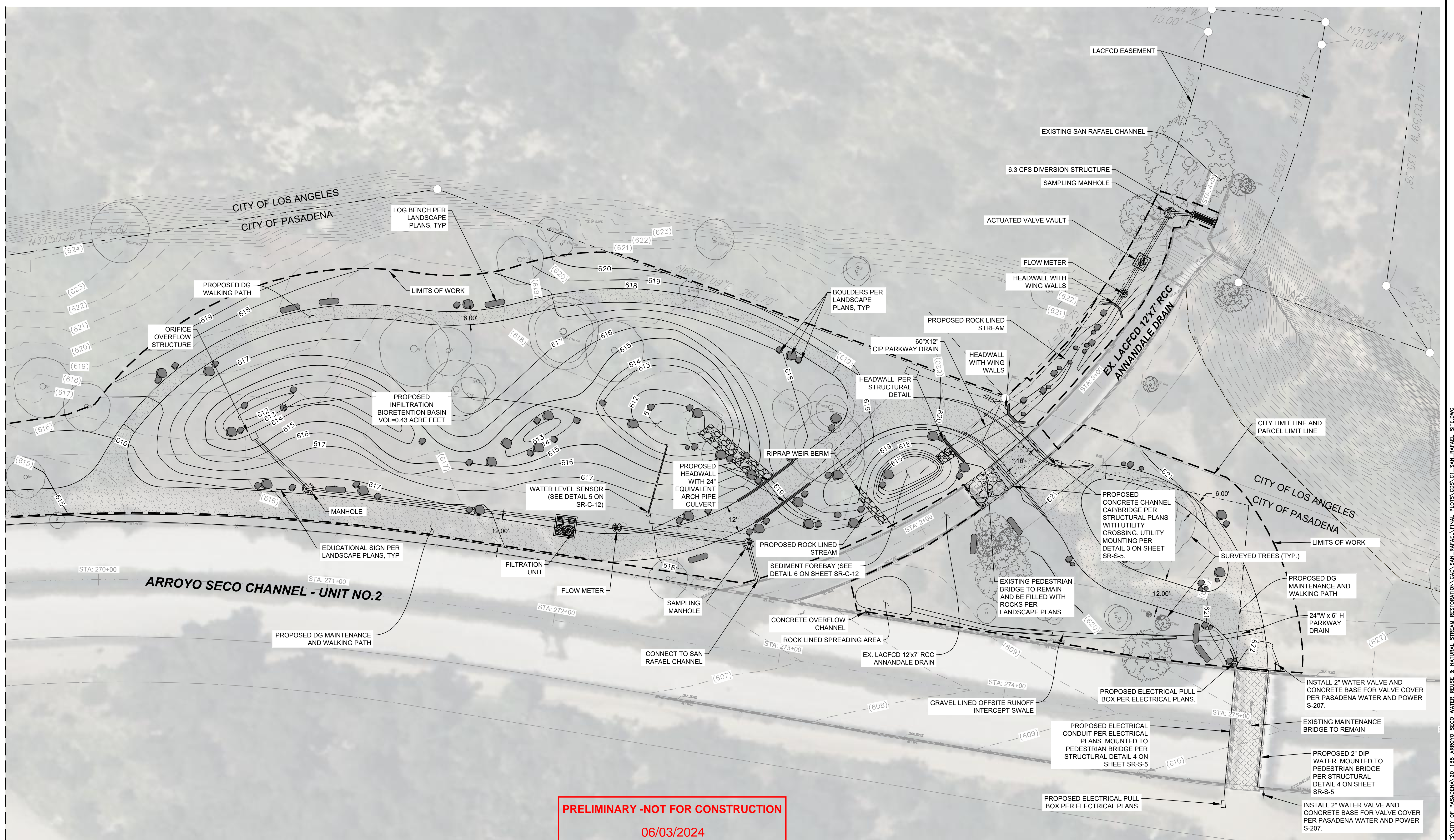
**NOTE:**  
 BOUNDARY LINES . . . . WERE ESTABLISHED FROM RECOVERED CITY, COUNTY AND/OR PRIVATE SURVEY MONUMENTS WHOSE CHARACTER AND SOURCE ARE SO NOTED ON THE SURVEY.  
 THIS MAP ALSO REPRESENTS A GRAPHICAL DEPICTION OF THE BOUNDARY OF THE SITE ADJOINING RIGHTS OF WAY BASED UPON COUNTY OF LOS ANGELES ASSESSOR MAPS AND OTHER PUBLIC RECORDS AND DOES NOT REPRESENT A FIELD SURVEY. THIS MAP IS INTENDED FOR FEASIBILITY AND PRELIMINARY PLANNING PURPOSES AND SHOULD NOT BE RELIED ON AS AN ACCURATE SURVEY OF THE PROPERTY LINES AND RIGHTS OF WAY.



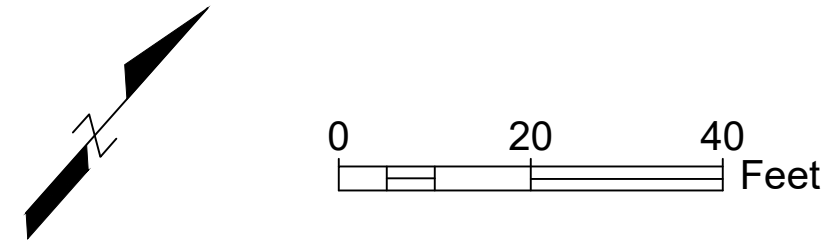
**PRELIMINARY - NOT FOR CONSTRUCTION**  
 06/03/2024

	DESIGNED	BBH				<b>PSOMAS</b> 555 South Flower Street, Ste. 4300 Los Angeles, CA 90071 (213) 223-1400 (213) 223-1444 (FAX) www.psomas.com	DESIGN SURVEY FOR: <b>CRAFTWATER ENGINEERING, INC.</b> ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT IN THE LOWER ARROYO SECO IN THE CITY OF PASADENA COUNTY OF LOS ANGELES STATE OF CALIFORNIA	DATE	MAY 2, 2022	SHEET	V-8
	DRAFTED	BBH	9/28/22	SHOW ADJACENT TRACT BOUNDARY NEAR NORTH PROJECT SITE (SHEET 8)	BBH			DLR	SCALE	1" = 40'	
CHECKED	DLR	6/24/22	ADDITIONAL SURVEY AREA (SEE SHEETS 5 & 7) & OAK TREES	ASW	DLR	PROJECT NUMBER	1CRA120100 T100			97	
REV	DATE	DESCRIPTION	BY	APPD	DATE	<small>           REF:         </small>					

MATCHLINE SEE SHEET SR-C-2



**PRELIMINARY - NOT FOR CONSTRUCTION**  
 06/03/2024



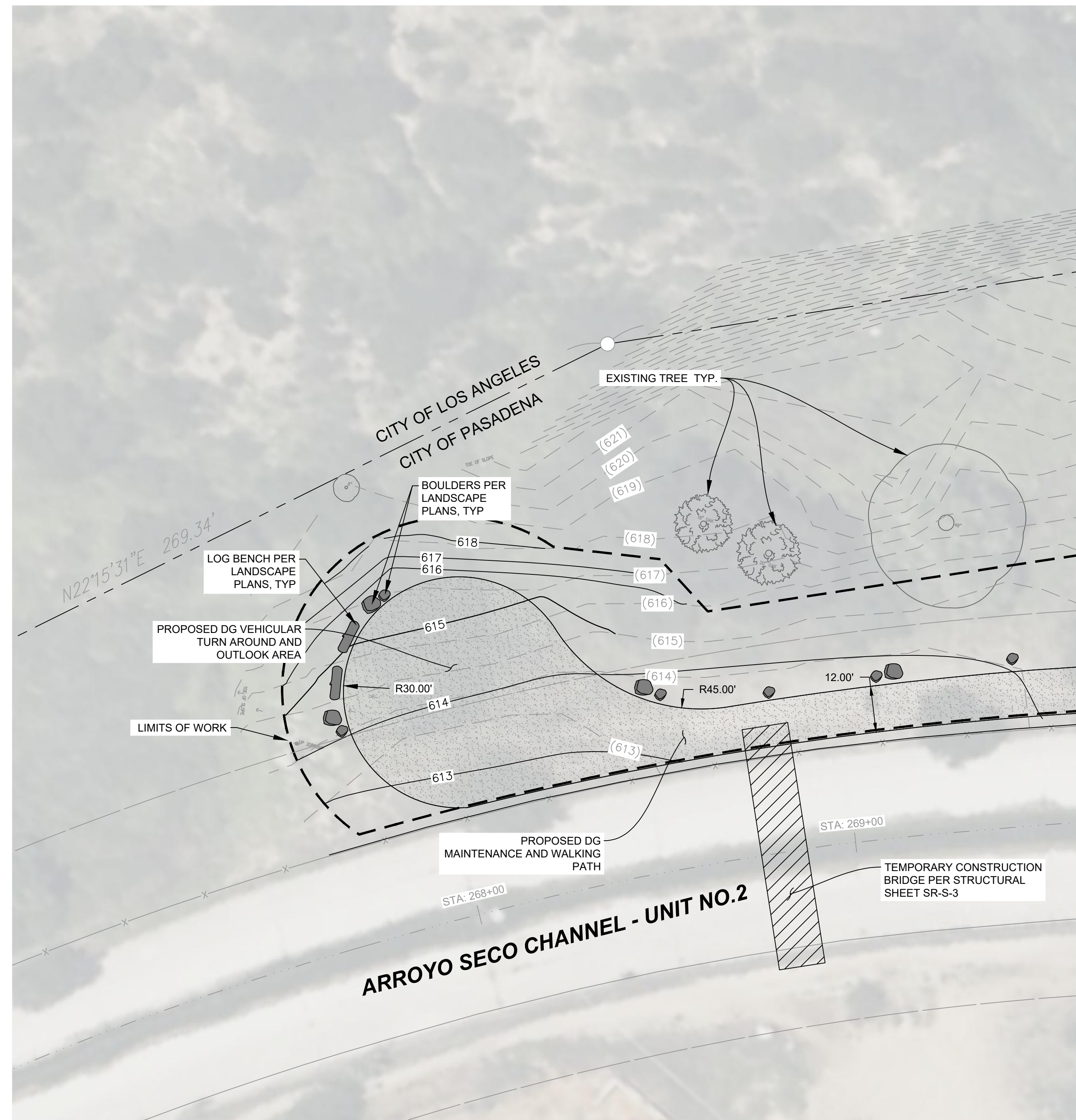
- NOTES:
- REFER TO LANDSCAPE PLANS FOR SURFACE HARDSCAPE AND SOFTSCAPE MATERIALS, SITE AMENITIES, AND DETAILS.
  - REFER TO TREE DISPOSITION PLANS TO DETERMINE WHICH TREES ARE TO REMAIN AND WHICH ARE TO BE REMOVED.
  - REFER TO HORIZONTAL CONTROL PLAN (SR-C-7) FOR LAYOUT INFORMATION.

DRAWN BY	REVISIONS				
	MARK	DATE	DESCRIPTION	BY	CHKD/APPROVED
AT					
DESIGNED BY					
AT					
CHECKED BY					
CAS			AS BUILT		

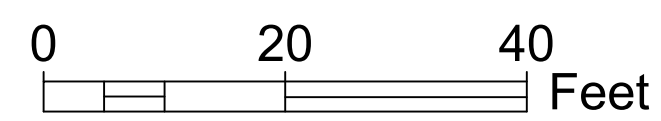
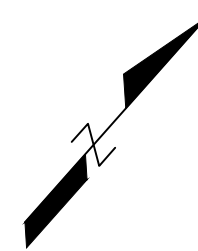
CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT		
SHEET TITLE	SITE PLAN		
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX

SAN RAFAEL SITE	
SHEET	SR-C-1
	11 OF 97
DWG. NO.	

Date: July 8, 2022 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_RAFAEL\FINAL PLOTS\CDS\CT\_1\_SAN\_RAFAEL-SITE.DWG



MATCHLINE SEE SHEET SR-C-1

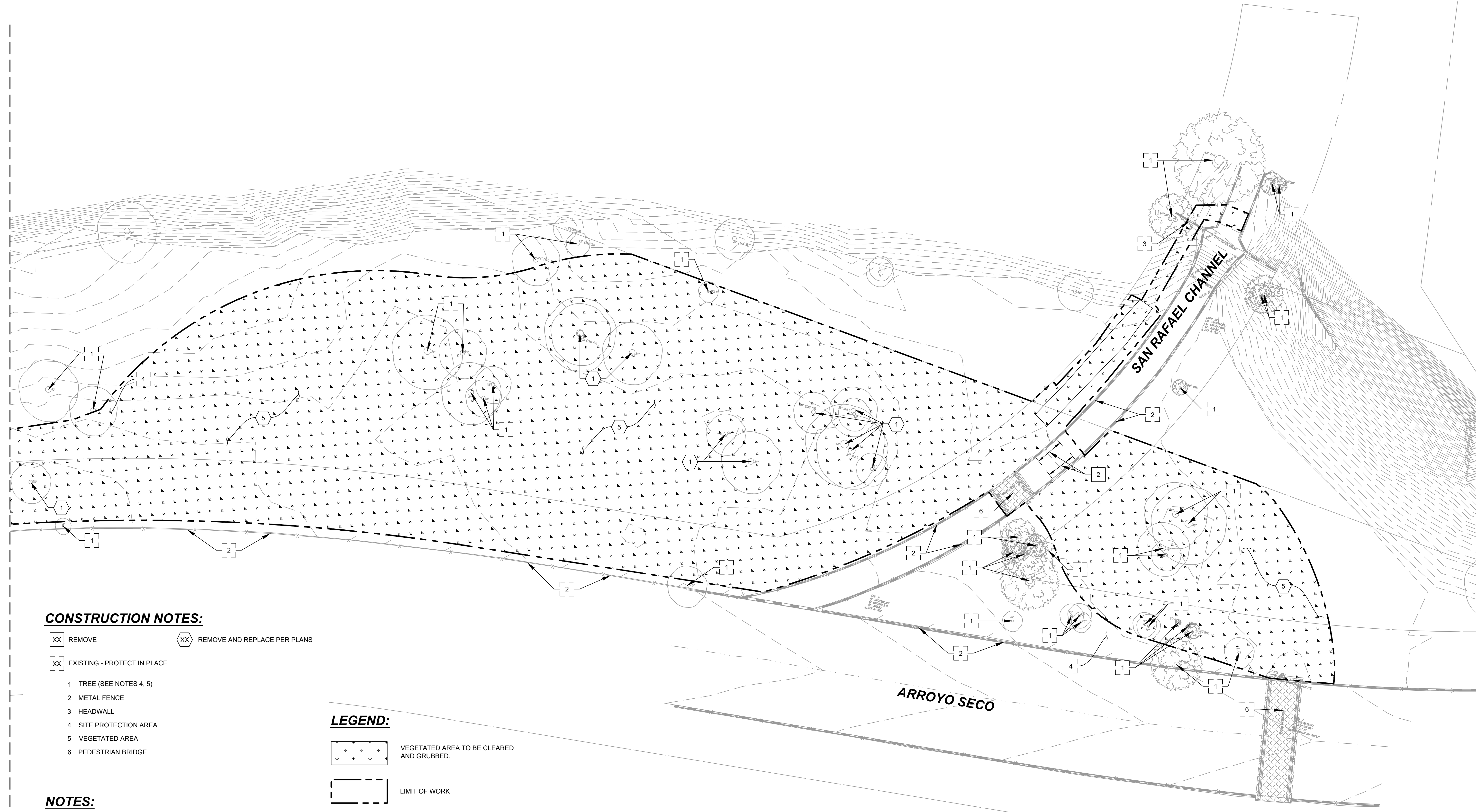


**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				SAN RAFAEL SITE				
AT		MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT				SHEET	SR-C-2	
DESIGNED BY								SHEET TITLE				12	OF 97	
AT								SCALE				AS SHOWN	ACCOUNT NUMBER	XXXXXX
CHECKED BY								DWG. NO.						
CAS								AS BUILT						

Date: July 8, 2022 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_RAFAEL\FINAL PLOTS\CDS\CT\_SAN\_RAFAEL-SITE.DWG

MATCHLINE SEE SHEET SR-C-4



**CONSTRUCTION NOTES:**

XX REMOVE      XX REMOVE AND REPLACE PER PLANS

XX EXISTING - PROTECT IN PLACE

- 1 TREE (SEE NOTES 4, 5)
- 2 METAL FENCE
- 3 HEADWALL
- 4 SITE PROTECTION AREA
- 5 VEGETATED AREA
- 6 PEDESTRIAN BRIDGE

**LEGEND:**

VEGETATED AREA TO BE CLEARED AND GRUBBED.

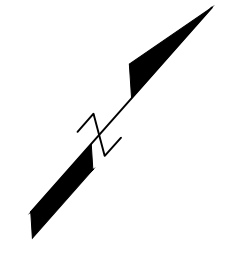
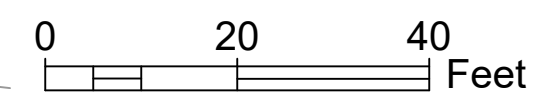
LIMIT OF WORK

RIGHT OF WAY (R/W) / PROPERTY LINE

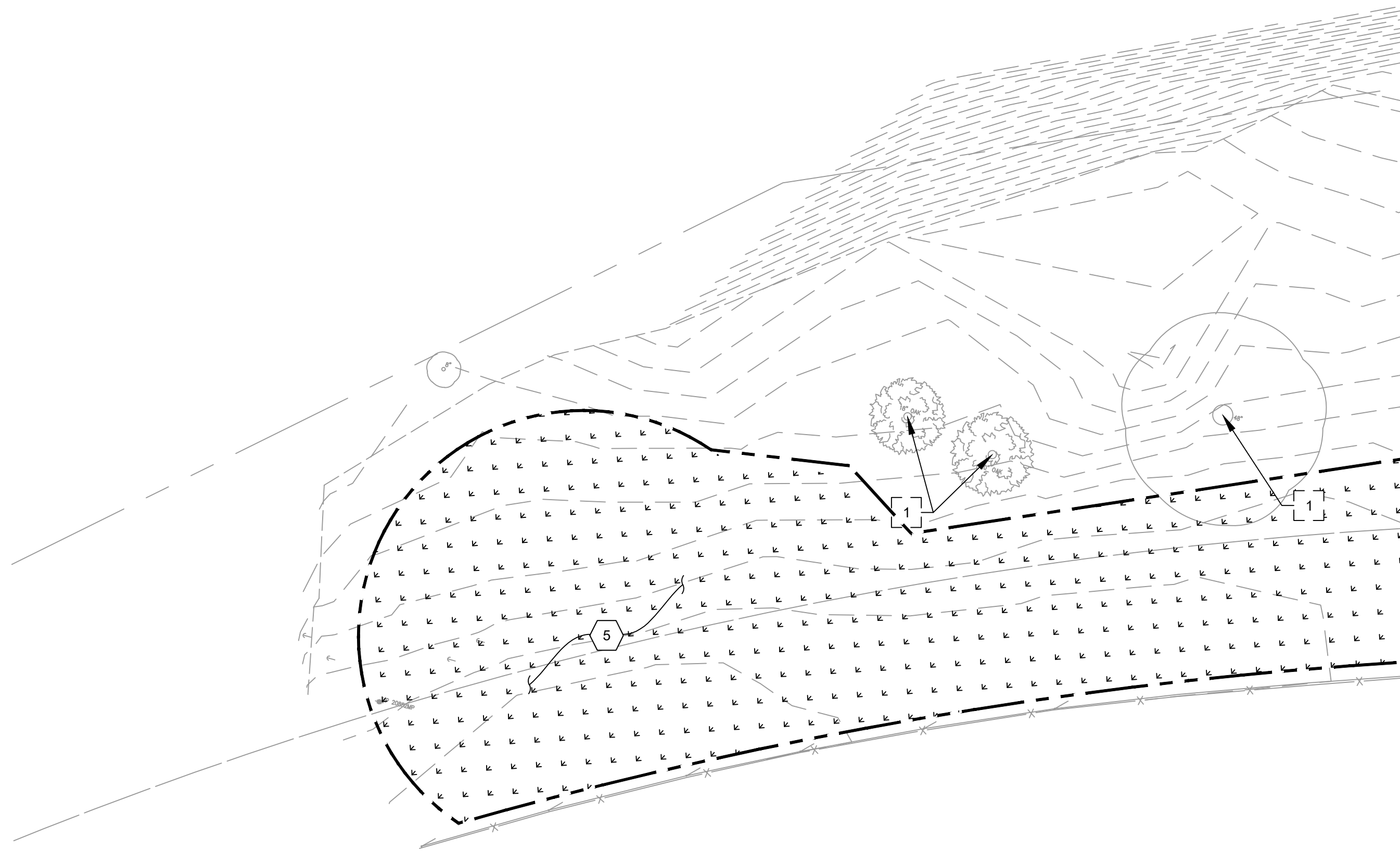
**NOTES:**

1. LOCATION OF EXISTING UTILITIES IS APPROXIMATE AND BASED ON RECORD DRAWINGS. ACTUAL CONDITIONS MAY VARY. CONTRACTOR SHALL POT HOLE TO FIELD VERIFY PRIOR TO EXCAVATION.
2. EXISTING UNDERGROUND UTILITIES MUST BE PROTECTED IN PLACE UNLESS OTHERWISE SPECIFIED PER PLAN.
3. REFER TO PROJECT SPECIFICATIONS FOR DEMOLITION REQUIREMENTS.
4. ALL TREE REMOVAL SHALL BE PER TREE REMOVAL PLAN BY LANDSCAPE ARCHITECT SEE SHEET SR-L-1.
5. TREES TO BE REMOVED SHALL BE TAGGED BY CONTRACTOR PRIOR TO DEMOLITION. CONTRACTOR SHALL REMOVE TREES AFTER APPROVAL FROM THE CITY OF PASADENA.

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024



DRAWN BY				REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS					
AT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT			ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT		SHEET	SR-C-3
DESIGNED BY							SHEET TITLE			DEMOLITION PLAN		10	OF 95
AT							SCALE			AS SHOWN		DWG. NO.	
CHECKED BY							ACCOUNT NUMBER			XXXXXX			
CAS			AS BUILT										



MATCHLINE SEE SHEET SR-C-3

**CONSTRUCTION NOTES:**

XX REMOVE      XX REMOVE AND REPLACE PER PLANS

XX EXISTING - PROTECT IN PLACE

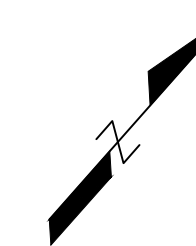
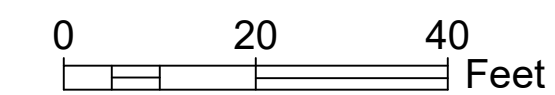
- 1 TREE (SEE NOTES 4, 5)
- 2 METAL FENCE
- 3 HEADWALL
- 4 SITE PROTECTION AREA
- 5 VEGETATED AREA
- 6 PEDESTRIAN BRIDGE

**LEGEND:**

- VEGETATED AREA TO BE CLEARED AND GRUBBED.
- LIMIT OF WORK
- RIGHT OF WAY (R/W) / PROPERTY LINE

**NOTES:**

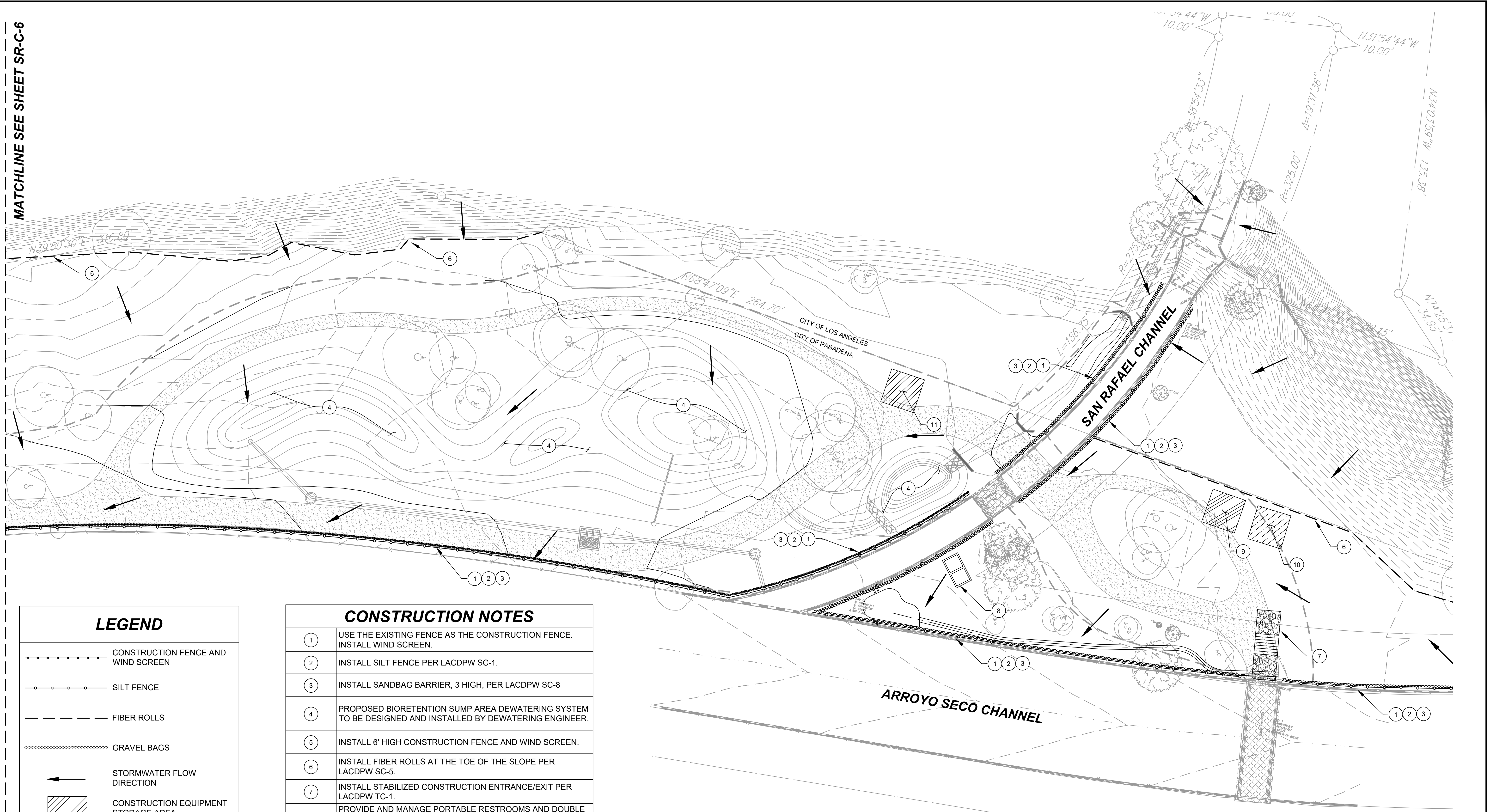
1. LOCATION OF EXISTING UTILITIES IS APPROXIMATE AND BASED ON RECORD DRAWINGS. ACTUAL CONDITIONS MAY VARY. CONTRACTOR SHALL POT HOLE TO FIELD VERIFY PRIOR TO EXCAVATION.
2. EXISTING UNDERGROUND UTILITIES MUST BE PROTECTED IN PLACE UNLESS OTHERWISE SPECIFIED PER PLAN.
3. REFER TO PROJECT SPECIFICATIONS FOR DEMOLITION REQUIREMENTS.
4. ALL TREE REMOVAL SHALL BE PER TREE REMOVAL PLAN BY LANDSCAPE ARCHITECT SEE SHEET SR-L-1.
5. TREES TO BE REMOVED SHALL BE TAGGED BY CONTRACTOR PRIOR TO DEMOLITION. CONTRACTOR SHALL REMOVE TREES AFTER APPROVAL FROM THE CITY OF PASADENA.



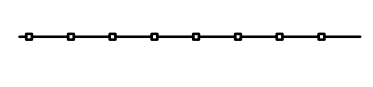
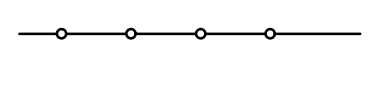
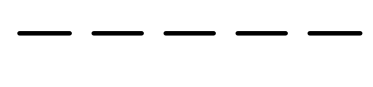
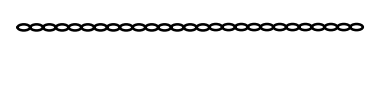

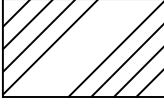
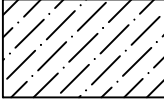

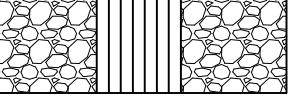
**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
AT	DESIGNED BY	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SHEET
AT								ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	SR-C-4
	CHECKED BY							SHEET TITLE	11 OF 95
	CAS			AS BUILT				DEMOLITION PLAN	DWG. NO.
								SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX

MATCHLINE SEE SHEET SR-C-6



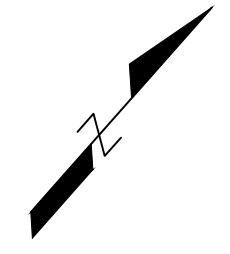
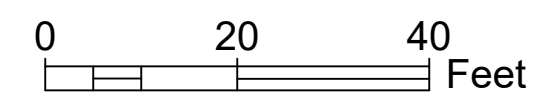
**LEGEND**

-  CONSTRUCTION FENCE AND WIND SCREEN
-  SILT FENCE
-  FIBER ROLLS
-  GRAVEL BAGS
-  STORMWATER FLOW DIRECTION
-  CONSTRUCTION EQUIPMENT STORAGE AREA
-  MATERIAL STORAGE AREA
-  STOCKPILE AREA
-  STABILIZED CONSTRUCTION ENTRANCE/EXIT

**CONSTRUCTION NOTES**

①	USE THE EXISTING FENCE AS THE CONSTRUCTION FENCE. INSTALL WIND SCREEN.
②	INSTALL SILT FENCE PER LACDPW SC-1.
③	INSTALL SANDBAG BARRIER, 3 HIGH, PER LACDPW SC-8
④	PROPOSED BIORETENTION SUMP AREA DEWATERING SYSTEM TO BE DESIGNED AND INSTALLED BY DEWATERING ENGINEER.
⑤	INSTALL 6' HIGH CONSTRUCTION FENCE AND WIND SCREEN.
⑥	INSTALL FIBER ROLLS AT THE TOE OF THE SLOPE PER LACDPW SC-5.
⑦	INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT PER LACDPW TC-1.
⑧	PROVIDE AND MANAGE PORTABLE RESTROOMS AND DOUBLE CONTAINMENT PER LACDPW WM-9. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
⑨	PROVIDE AND MANAGE CONSTRUCTION PARKING AREA PER LACDPW NS-8, NS-9, AND NS-10. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
⑩	PROVIDE AND MANAGE MATERIAL STORAGE AREA PER LACDPW WM-1 AND WM-2. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
⑪	PROVIDE AND MANAGE STOCKPILE AREA PER LACDPW WM-3. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.

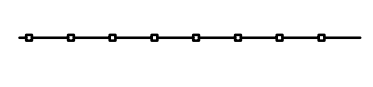
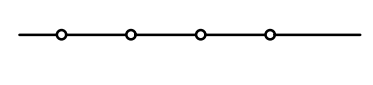
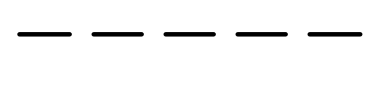
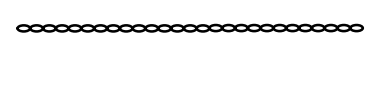

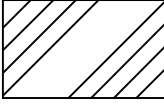
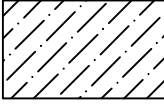
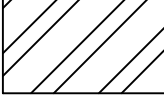
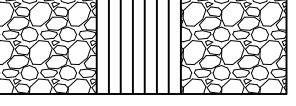
**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024



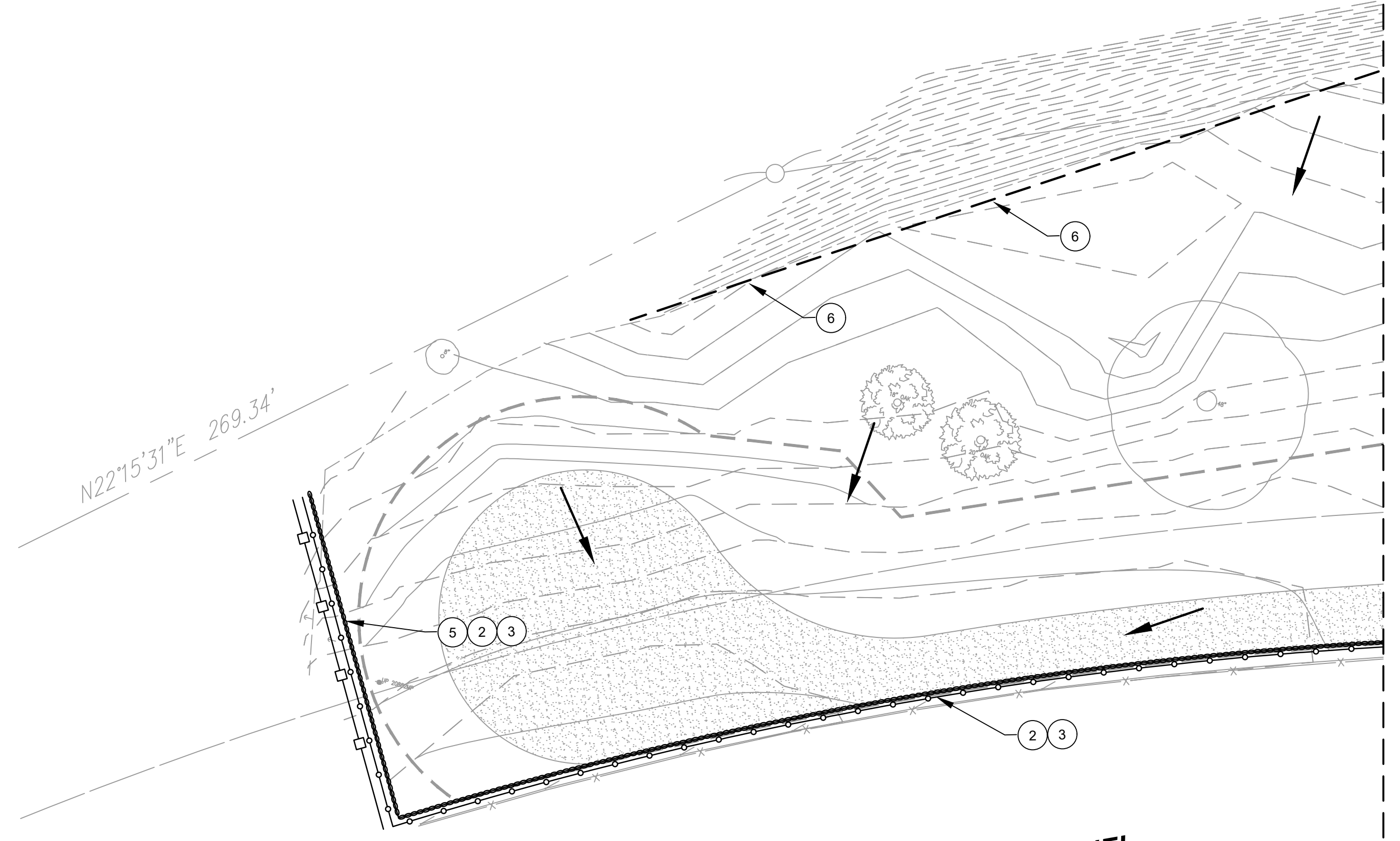
DRAWN BY AT		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY	AT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	SHEET <b>12</b> OF <b>95</b>
CHECKED BY	CAS							SHEET TITLE EROSION CONTROL PLAN	DWG. NO. 12 OF 95
		AS BUILT						SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX

Date: July 6, 2022 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_RAFAEL\FINAL PLOTS\CDS\03\_SAN\_RAFAEL-EROSION.DWG

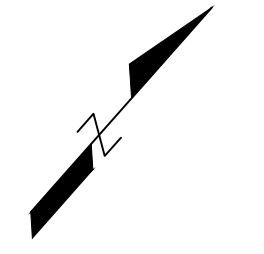
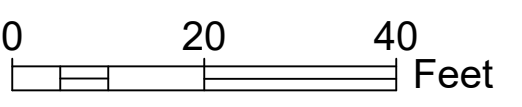
### LEGEND

-  CONSTRUCTION FENCE AND WIND SCREEN
-  SILT FENCE
-  FIBER ROLLS
-  GRAVEL BAGS
-  STORMWATER FLOW DIRECTION
-  CONSTRUCTION EQUIPMENT STORAGE AREA
-  MATERIAL STORAGE AREA
-  STOCKPILE AREA
-  STABILIZED CONSTRUCTION ENTRANCE/EXIT

CONSTRUCTION NOTES	
①	USE THE EXISTING FENCE AS THE CONSTRUCTION FENCE. INSTALL WIND SCREEN.
②	INSTALL SILT FENCE PER LACDPW SC-1.
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⑪	PROVIDE AND MANAGE STOCKPILE AREA PER LACDPW WM-3. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.

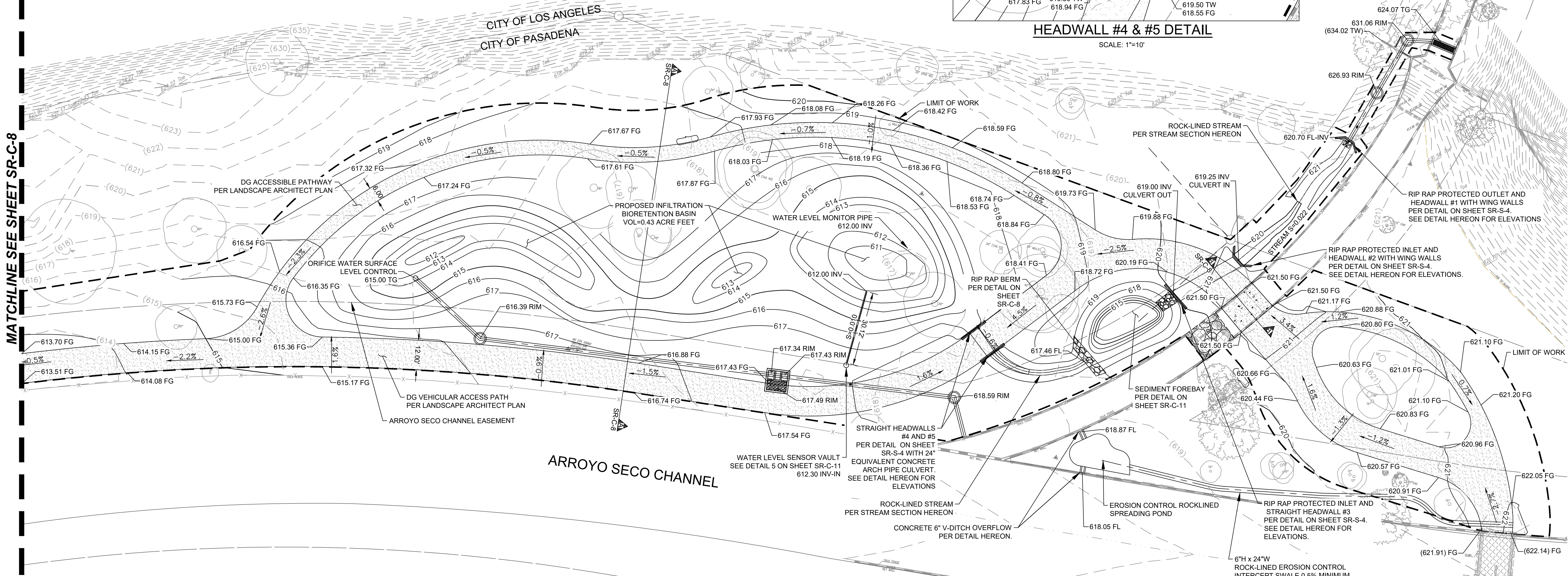
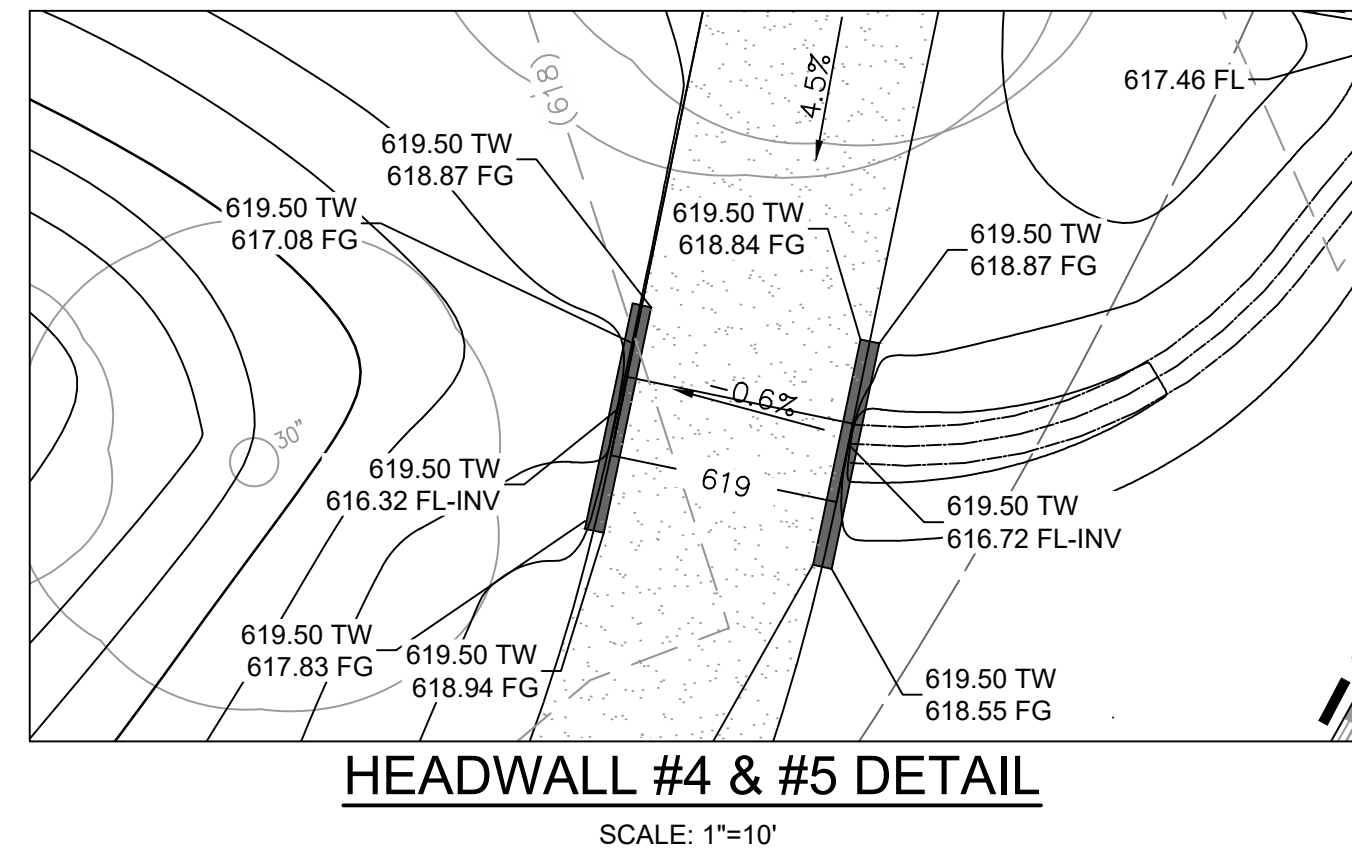
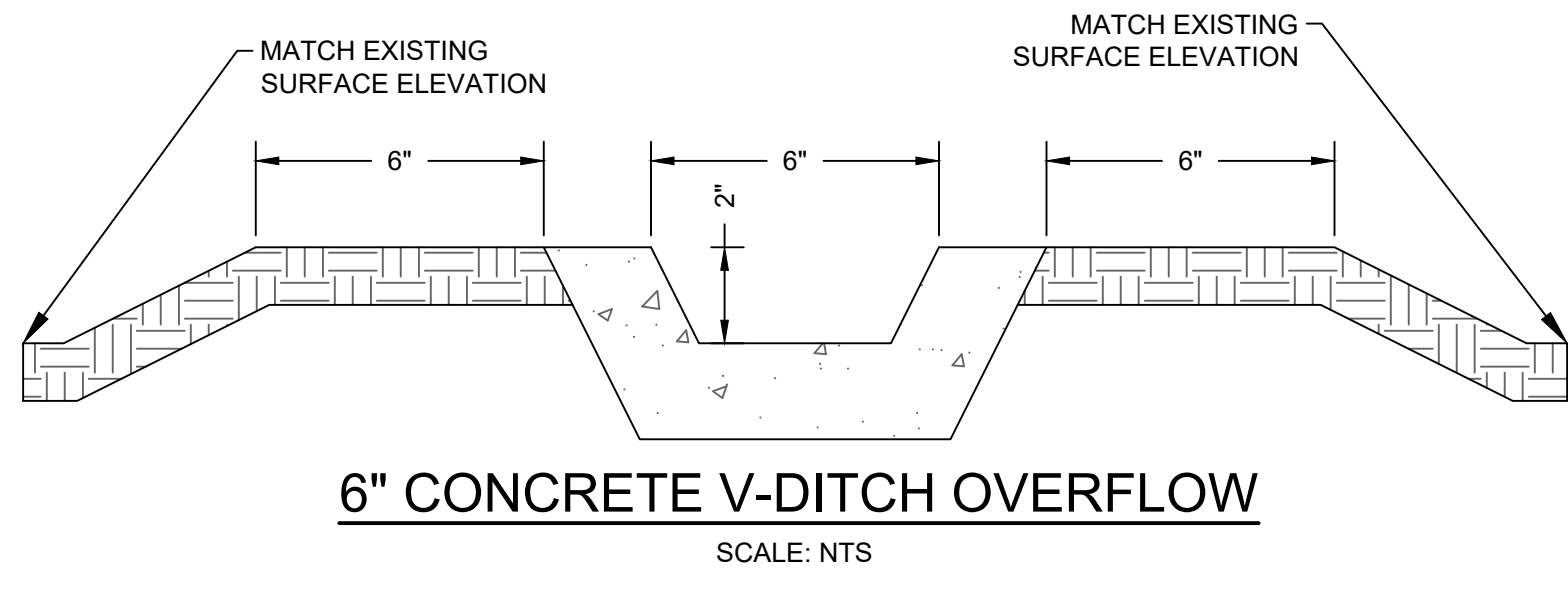
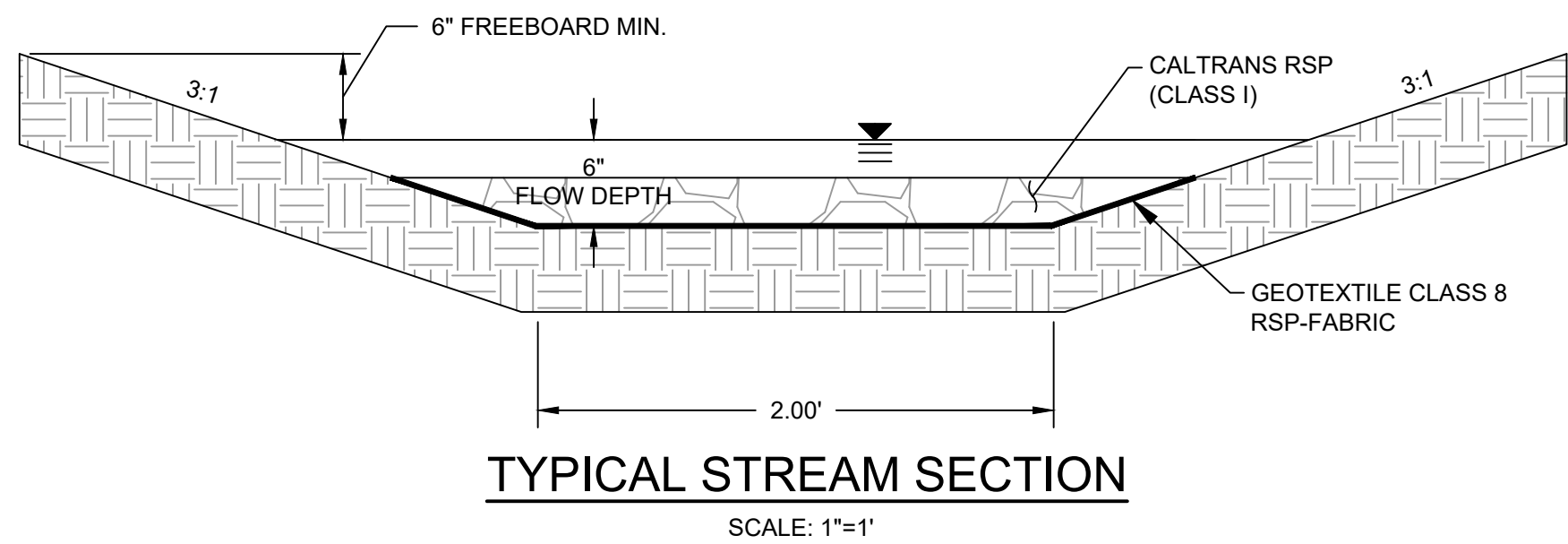


**PRELIMINARY - NOT FOR CONSTRUCTION**  
 06/03/2024

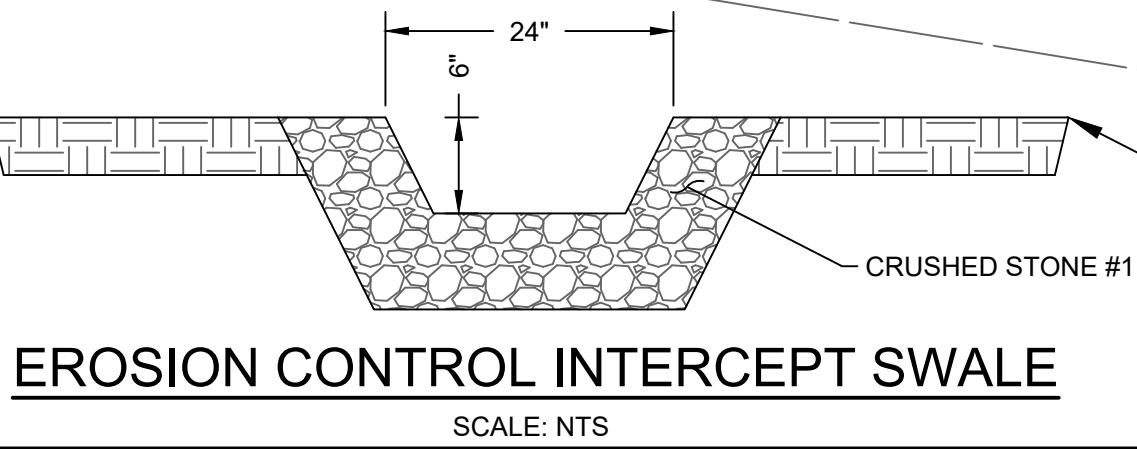
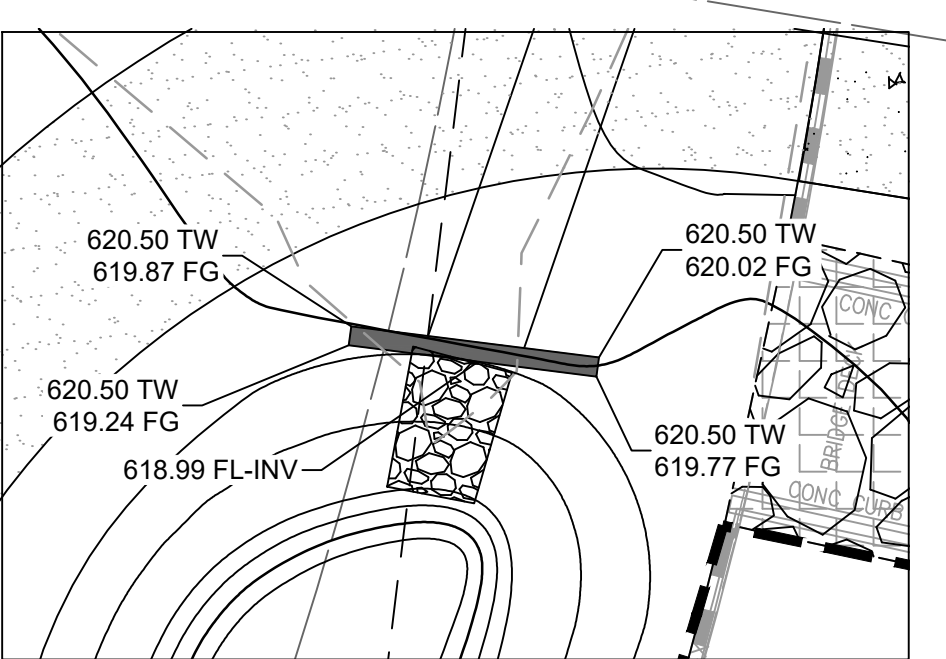
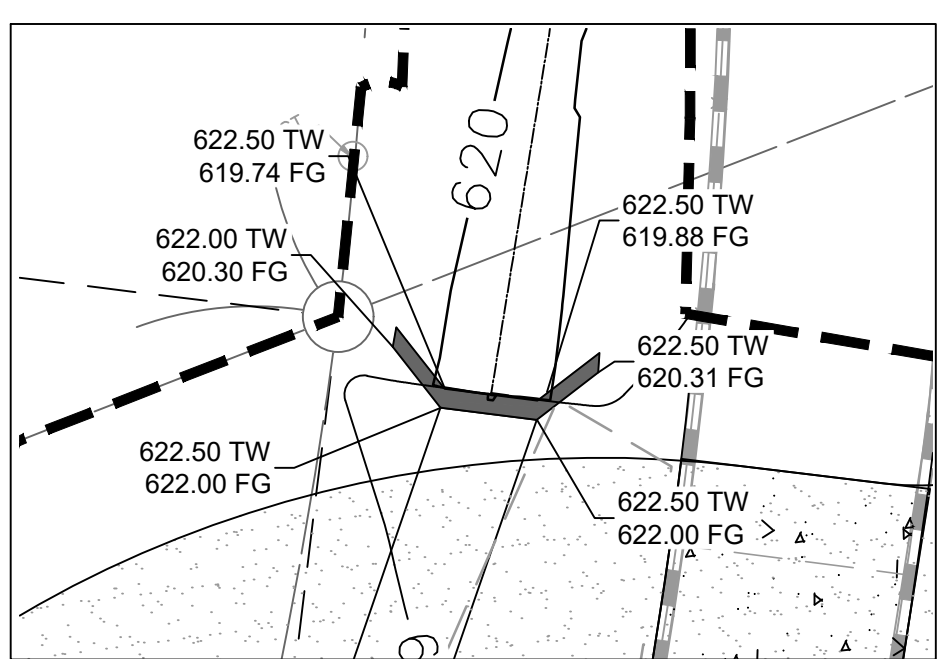
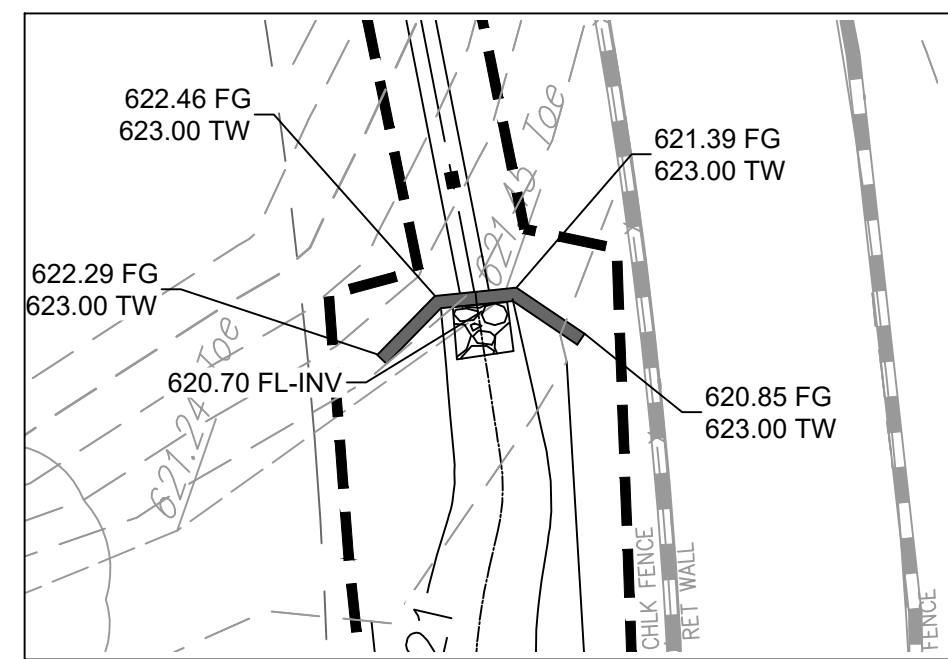


DRAWN BY	AT	DESIGNED BY	AT	CHECKED BY	CAS	AS BUILT	REVISIONS MARK DATE DESCRIPTION BY CHKD APPROVED	CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS PROJECT ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	SHEET <b>13</b> OF <b>95</b>
							SHEET TITLE <b>EROSION CONTROL PLAN</b>		DWG. NO.
							SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX	SR-C-6 13 OF 95

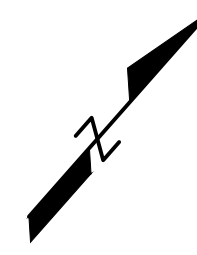
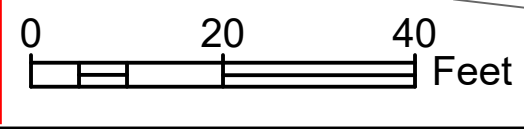




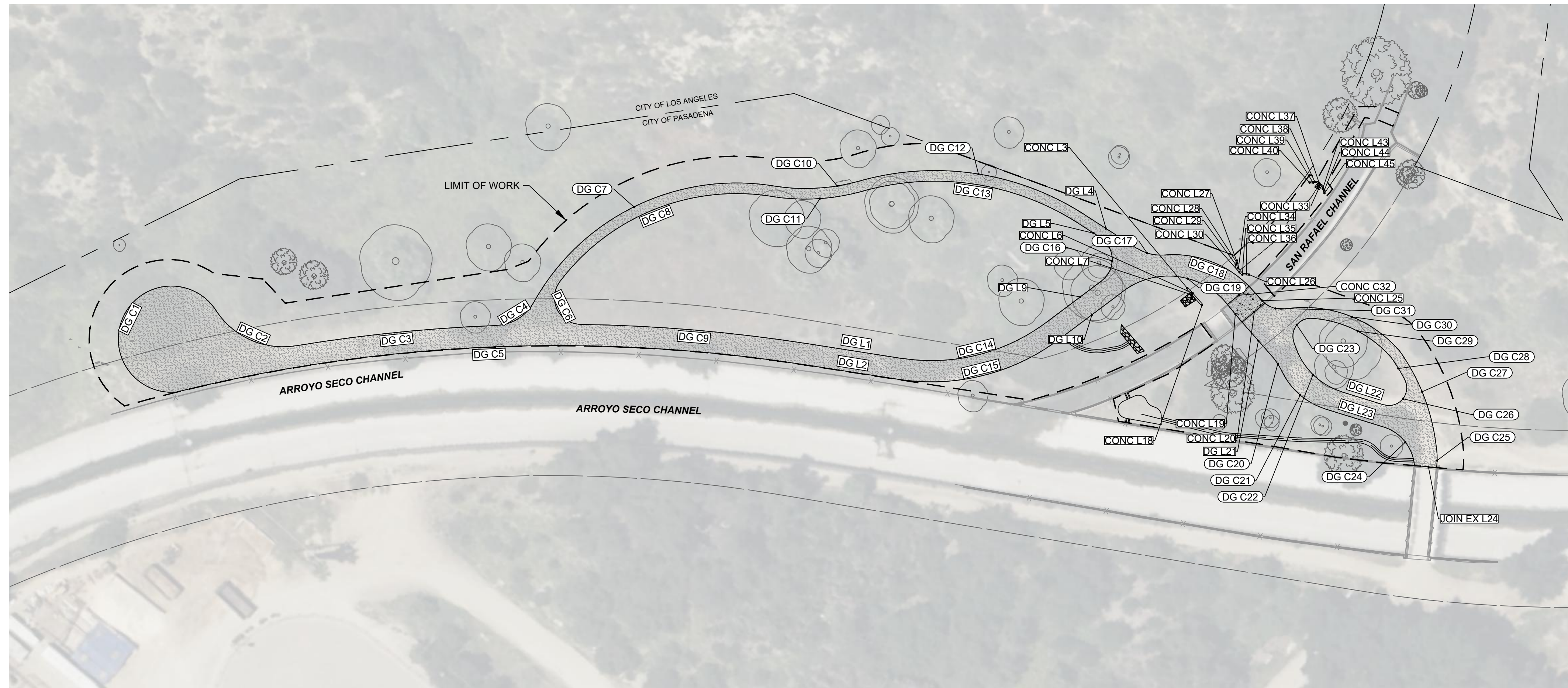
MATCHLINE SEE SHEET SR-C-8



**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024



DRAWN BY		REVISIONS		CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
AT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT
DESIGNED BY							ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT
AT							SHEET TITLE
CHECKED BY							GRADING PLAN
CAS			AS BUILT				SCALE
							AS SHOWN
							ACCOUNT NUMBER
							XXXXXX
							SHEET
							SR-C-7
							14 OF 95
							DWG. NO.



**LEGEND**

- LIMIT OF WORK
- X - FENCING
- - - JURISDICTION BORDER
- - - PROPERTY LINE / RW
- [Pattern] PROPOSED CONCRETE FLATWORK
- [Pattern] PROPOSED DECOMPOSED GRANITE PAVEMENT
- [Pattern] PROPOSED RIP RAP

**ABBREVIATIONS**

- CONC CONCRETE
- DG DECOMPOSED GRANITE
- JOIN EX JOIN EXISTING PAVEMENT

**NOTES**

1. HORIZONTAL CONTROL FOR STORMWATER UTILITY COMPONENTS PER SHEET SR-C-9.
2. SITE FURNISHINGS ARE PER LANDSCAPE PLANS.
3. SEE SHEET XXX FOR BASIS OF BEARINGS AND BENCHMARK INFORMATION.
4. FOR ALL JOIN EX LINES AND CURVES, CURRENT FIELD ALIGNMENT OF EXISTING PAVEMENT SHOULD SUPERSEDE LINE AND CURVE TABLE DATA.

LINE AND CURVE TABLE					
LINE # / CURVE #	LENGTH	BEARING / DELTA	RADIUS	START NORTHING	START EASTING
CONC C32	16.02	2.95	311.36	1867995.15	6511201.28
CONC L3	1.00	N7° 10' 14.16"E		1867970.76	6511175.46
CONC L6	13.00	S82° 49' 45.84"E		1867971.75	6511175.58
CONC L7	13.00	N82° 49' 45.84"W		1867969.13	6511188.36
CONC L18	1.00	S7° 04' 07.77"W		1867970.12	6511188.48
CONC L19	12.93	S81° 04' 05.58"E		1867979.31	6511198.90
CONC L20	16.68	S8° 55' 54.42"W		1867993.78	6511214.26
CONC L25	13.04	N83° 58' 11.06"W		1867993.78	6511214.26
CONC L26	1.03	S4° 10' 14.01"W		1868000.67	6511197.02
CONC L27	1.03	N10° 04' 07.93"E		1868000.98	6511186.26
CONC L28	4.06	S38° 10' 38.01"E		1868001.99	6511186.44
CONC L29	4.03	N38° 10' 38.01"W		1867997.82	6511188.75
CONC L30	5.04	N82° 49' 45.84"W		1867997.19	6511193.76
CONC L33	3.78	S84° 13' 20.23"W		1868064.69	6511194.95
CONC L34	4.89	S82° 49' 45.84"E		1867998.80	6511188.95
CONC L35	4.03	S52° 22' 17.21"W		1867999.65	6511196.95
CONC L36	4.07	N52° 24' 59.95"E		1867998.19	6511193.80
CONC L37	4.27	N84° 13' 20.23"E		1868064.95	6511190.88
CONC L38	4.29	N44° 20' 39.80"E		1868061.89	6511187.88
CONC L39	4.05	S44° 20' 39.80"W		1868064.31	6511191.19

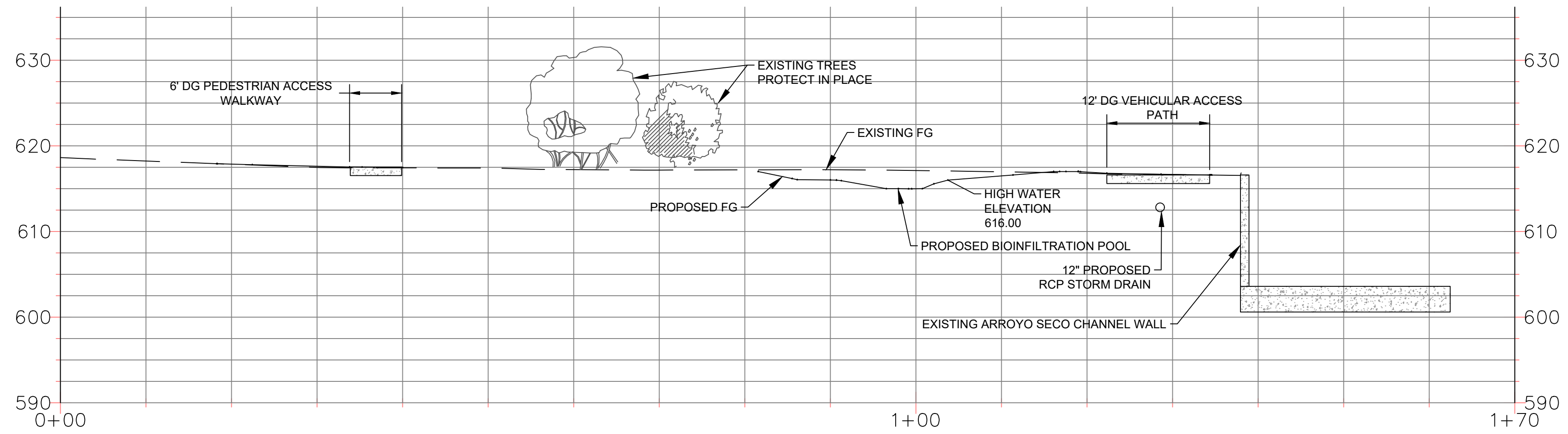
LINE AND CURVE TABLE					
LINE # / CURVE #	LENGTH	BEARING / DELTA	RADIUS	START NORTHING	START EASTING
CONC L40	0.67	N45° 39' 20.20"W		1868061.42	6511188.36
CONC L43	4.05	N55° 53' 59.33"W		1868062.42	6511198.30
CONC L44	4.29	S55° 53' 59.33"E		1868065.38	6511195.13
CONC L45	0.67	S34° 06' 00.67"W		1868062.98	6511198.68
DG C1	126.54	241.66	30.00	1867598.96	6510772.74
DG C2	52.21	66.48	45.00	1867598.96	6510772.74
DG C3	114.01	7.16	912.00	1867697.40	6510897.21
DG C4	25.67	58.84	25.00	1867697.40	6510897.21
DG C5	357.92	22.79	900.00	1867795.86	6511042.31
DG C6	33.03	126.18	15.00	1867739.44	6510907.68
DG C7	160.37	70.14	131.00	1867859.84	6510962.31
DG C8	135.56	62.14	125.00	1867854.77	6510965.51
DG C9	128.93	8.09	912.82	1867805.98	6511035.85
DG C10	49.42	24.84	114.00	1867859.84	6510962.31
DG C11	52.03	24.84	120.00	1867854.77	6510965.51
DG C12	131.85	48.43	156.00	1867963.90	6511104.56
DG C13	126.78	48.43	150.00	1867957.97	6511105.47
DG C14	86.25	45.76	108.00	1867834.89	6511081.19
DG C15	95.84	45.76	120.00	1867824.78	6511087.65
DG C16	28.91	110.43	15.00	1867942.31	6511136.81

LINE AND CURVE TABLE					
LINE # / CURVE #	LENGTH	BEARING / DELTA	RADIUS	START NORTHING	START EASTING
DG C17	16.39	37.56	25.00	1867969.26	6511139.49
DG C18	52.61	50.24	60.00	1867995.07	6511201.27
DG C19	66.49	89.60	42.52	1867979.31	6511198.90
DG C20	9.16	13.12	40.00	1867971.29	6511247.17
DG C21	32.96	47.22	40.00	1867971.29	6511247.17
DG C22	37.36	53.51	40.00	1867986.65	6511243.84
DG C23	19.69	112.81	10.00	1868004.89	6511239.71
DG C24	29.63	67.91	25.00	1867981.00	6511338.26
DG C25	11.38	14.79	44.07	1867988.37	6511348.30
DG C26	23.54	134.89	10.00	1867995.25	6511302.60
DG C27	58.95	29.28	115.36	1867996.81	6511340.72
DG C28	14.71	7.71	109.36	1868013.71	6511302.08
DG C29	51.39	45.25	65.07	1868018.03	6511288.03
DG C30	71.59	57.72	71.07	1868023.94	6511289.10
DG C31	12.50	47.73	15.00	1867993.78	6511214.26
DG L1	53.78	N57° 28' 26.81"E		1867805.98	6511035.85
DG L2	53.78	N57° 28' 26.81"E		1867795.86	6511042.31
DG L4	35.34	S81° 17' 14.34"W		1867969.26	6511139.49
DG L5	14.55	S81° 17' 14.34"W		1867960.18	6511119.85
DG L9	39.10	N11° 42' 56.34"E		1867904.02	6511128.87

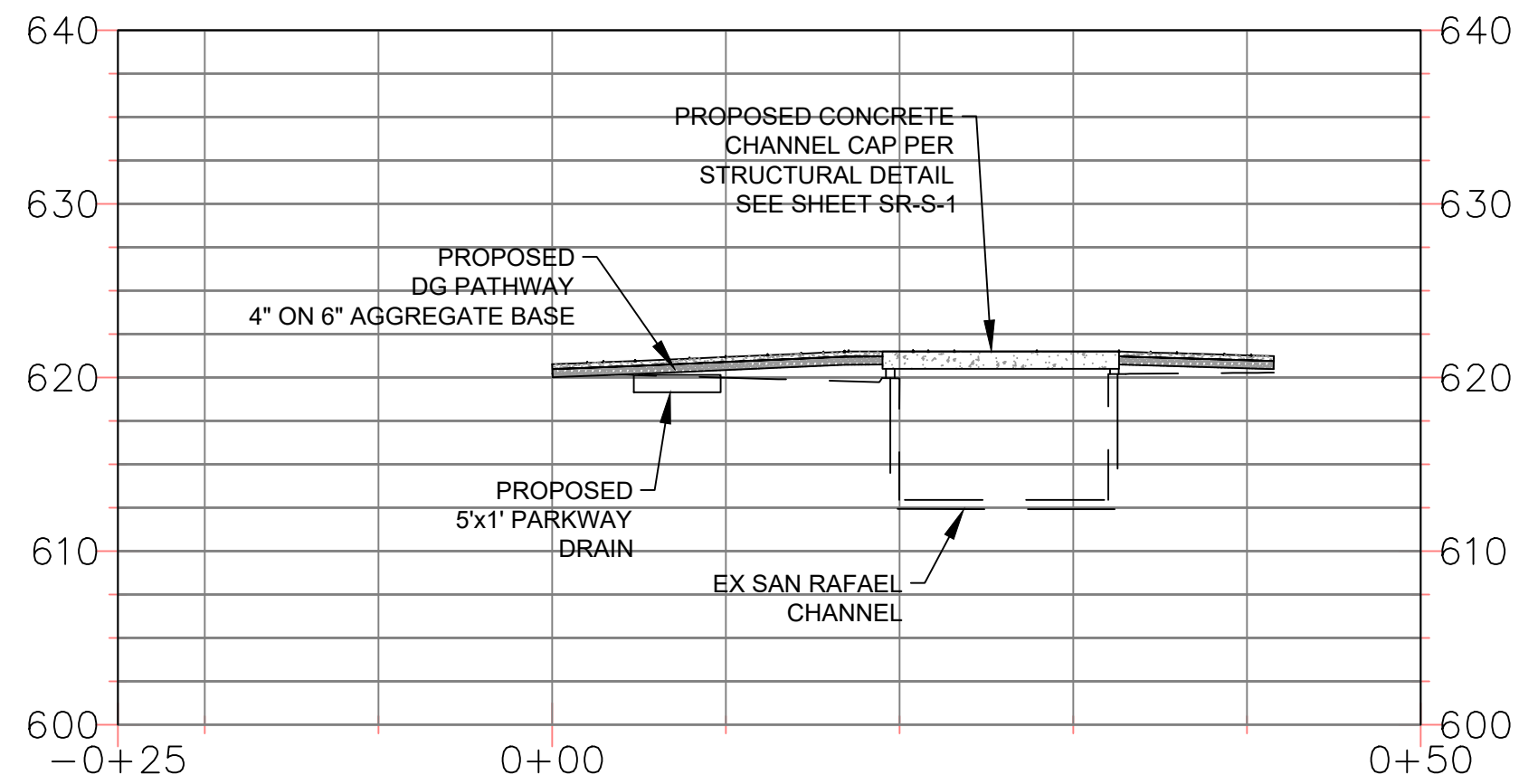
LINE AND CURVE TABLE					
LINE # / CURVE #	LENGTH	BEARING / DELTA	RADIUS	START NORTHING	START EASTING
DG L10	44.50	N11° 42' 56.34"E		1867901.59	6511140.62
DG L21	26.96	S82° 43' 02.88"E		1867977.30	6511211.67
DG L22	24.97	N65° 49' 52.65"E		1867985.03	6511279.82
DG L23	34.56	N65° 49' 52.65"E		1867971.60	6511279.21
JOIN EX L24	12.46	N53° 42' 53.73"E		1867981.00	6511338.26

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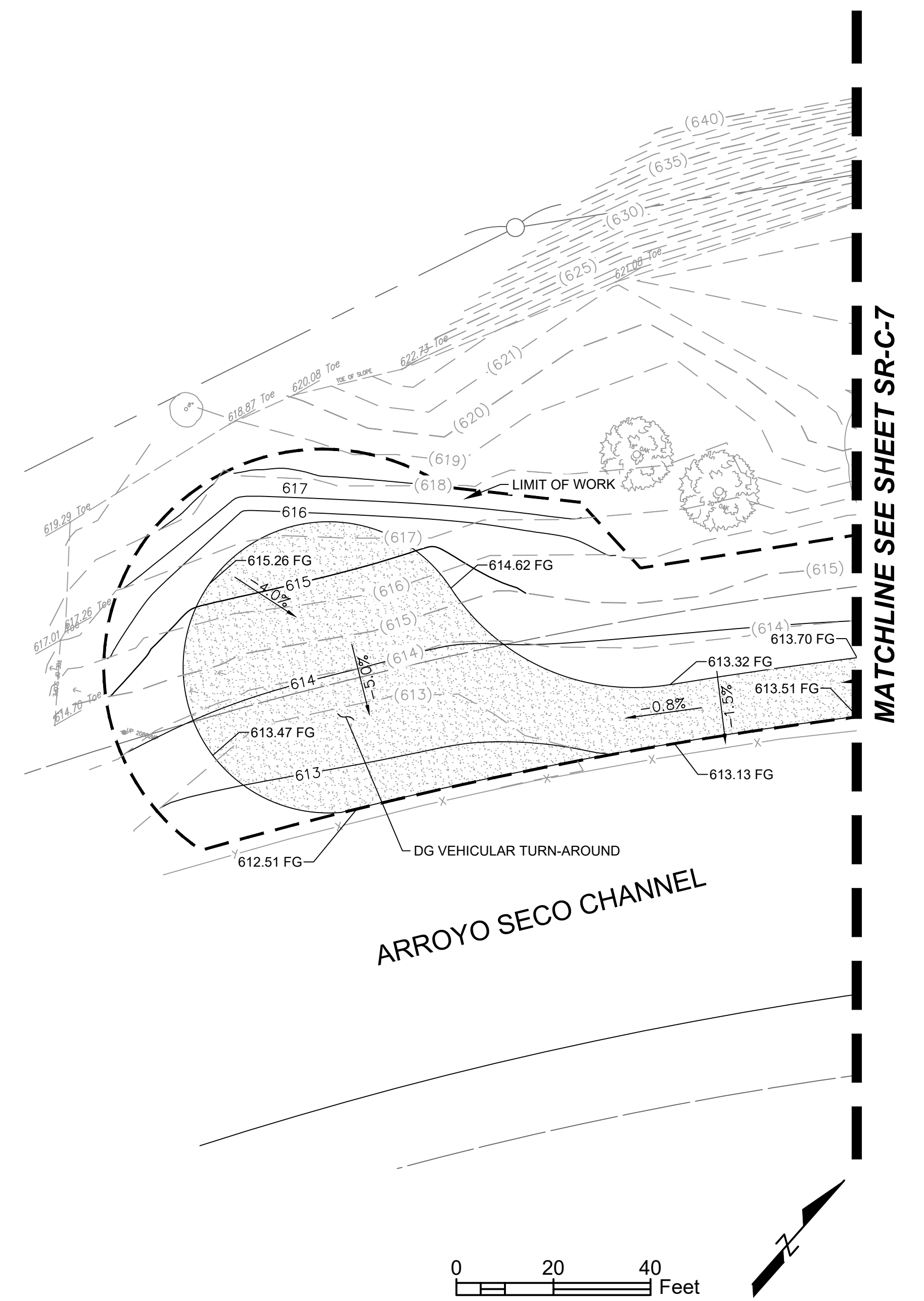
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	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	SHEET <b>SR-C-7</b>
							SHEET TITLE <b>HORIZONTAL CONTROL PLAN</b>	17 OF 95
	DESIGNED BY AT						SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX
CHECKED BY CAS								
AS BUILT								



**SECTION A-A**  
SCALE: 1"=10'



**SECTION B-B**



EARTHWORK QUANTITIES		
CUT (CY)	FILL (CY)	NET (CY)
1941.22	373.64	1567.58

NOTE: CUT/FILL REPORT CONTAINS RAW CALCULATED NUMBERS THAT DO NOT ACCOUNT FOR SHRINKAGE/SWELLING OF SOILS

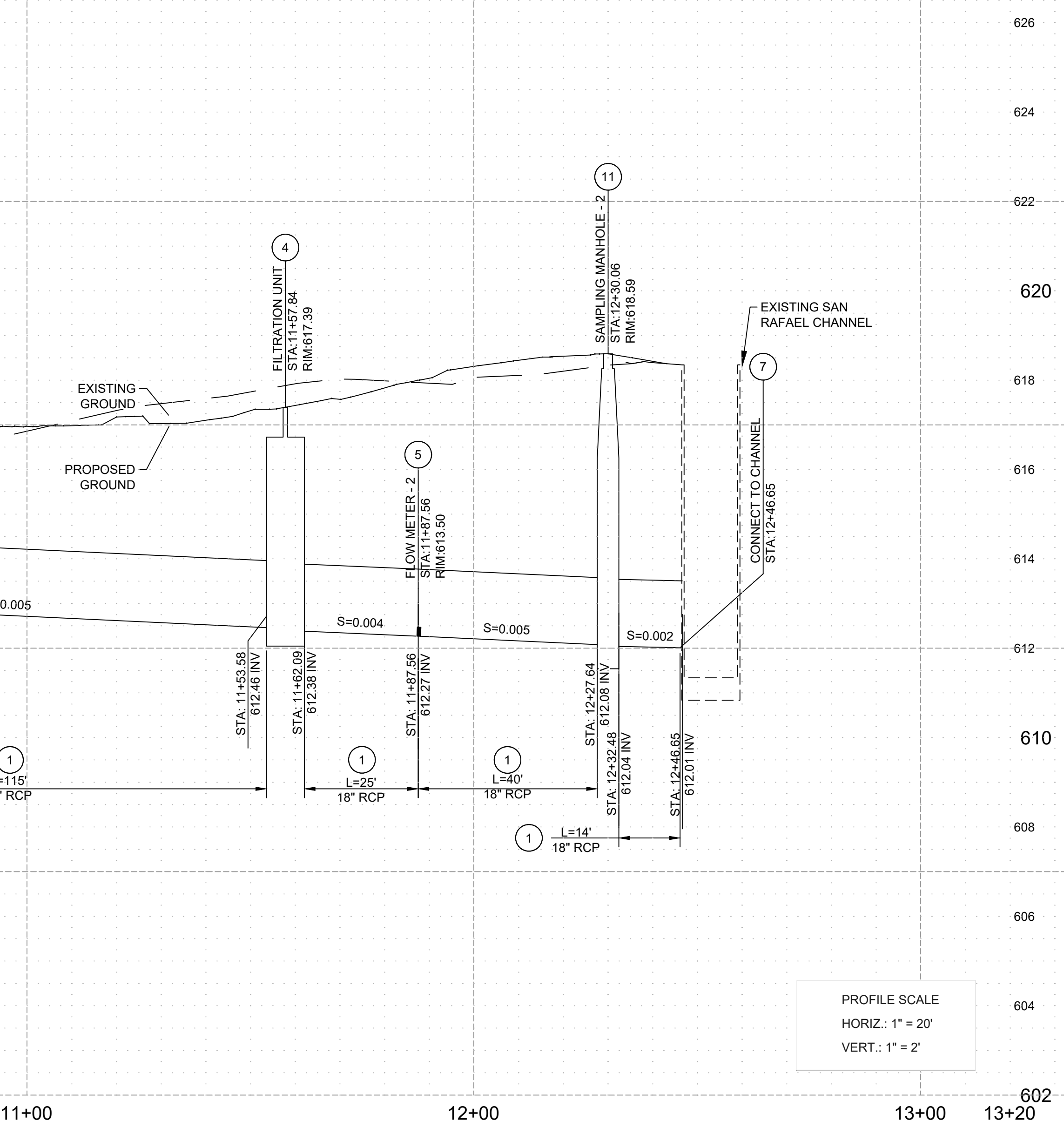
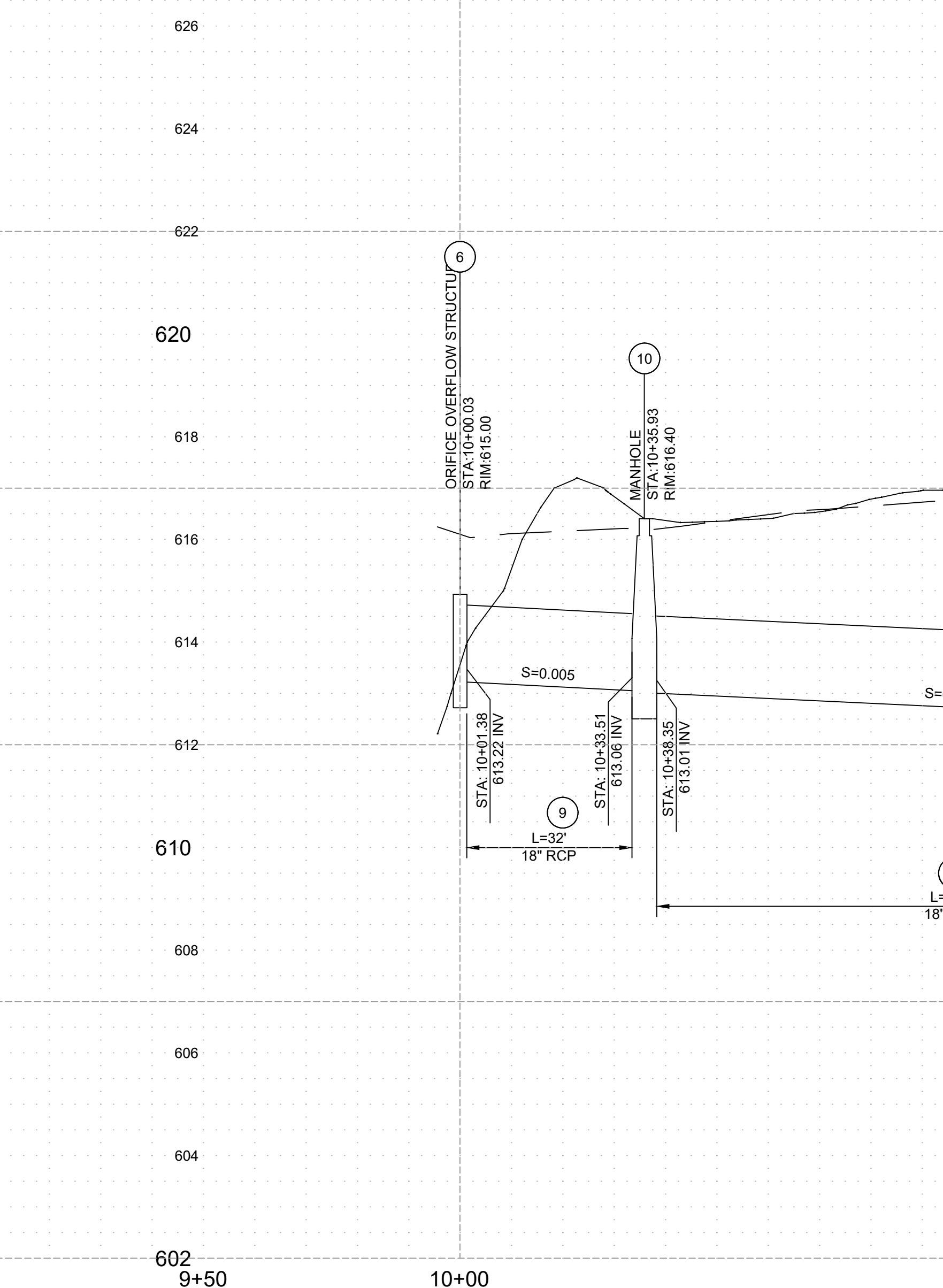
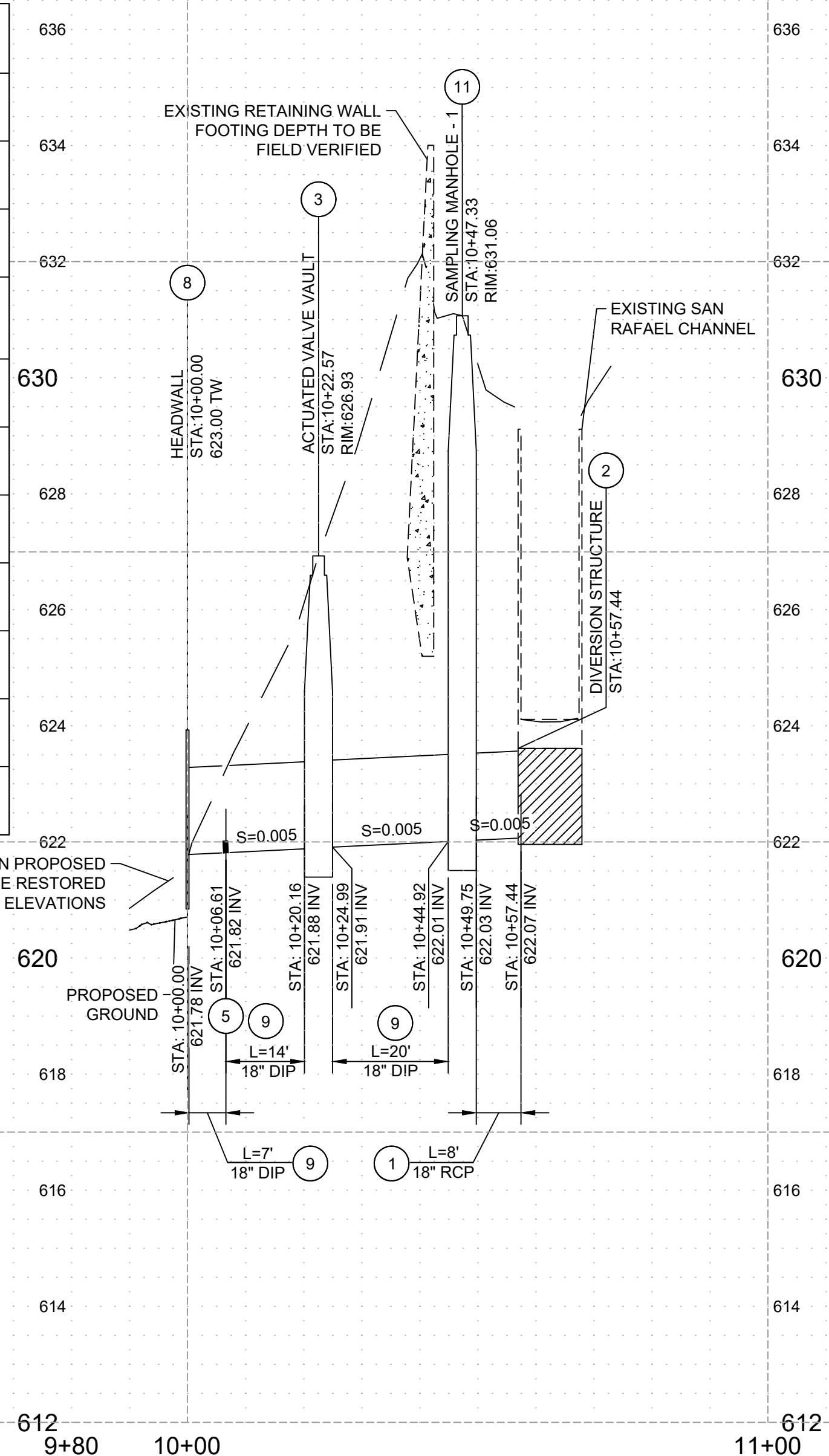
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06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
AT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SHEET	SR-C-8
DESIGNED BY							ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	15	OF 95
CHECKED BY							SHEET TITLE GRADING PLAN		
CAS			AS BUILT				SCALE AS SHOWN	ACCOUNT NUMBER	XXXXXX

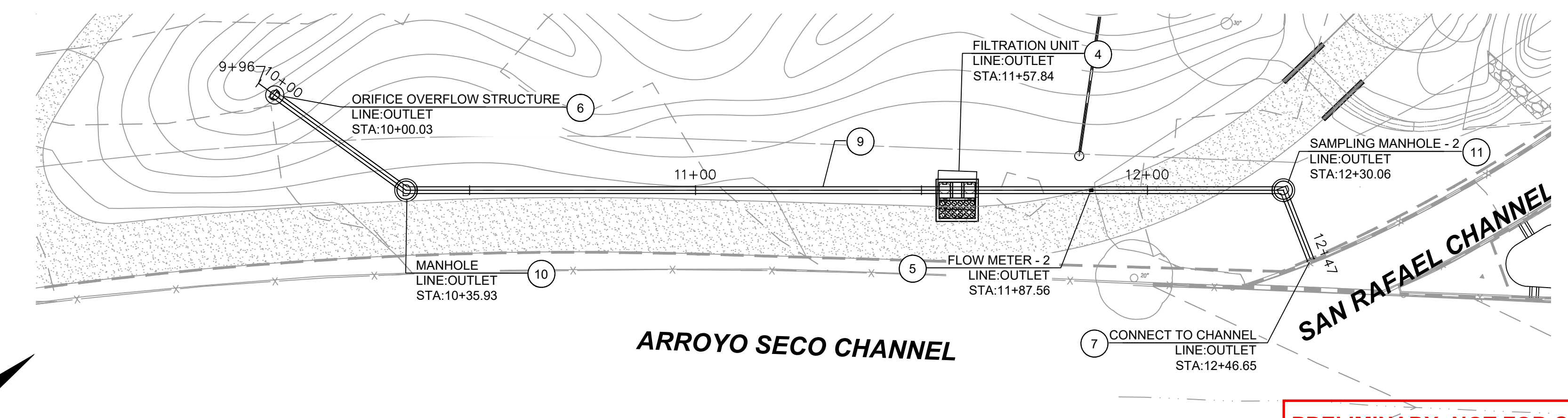
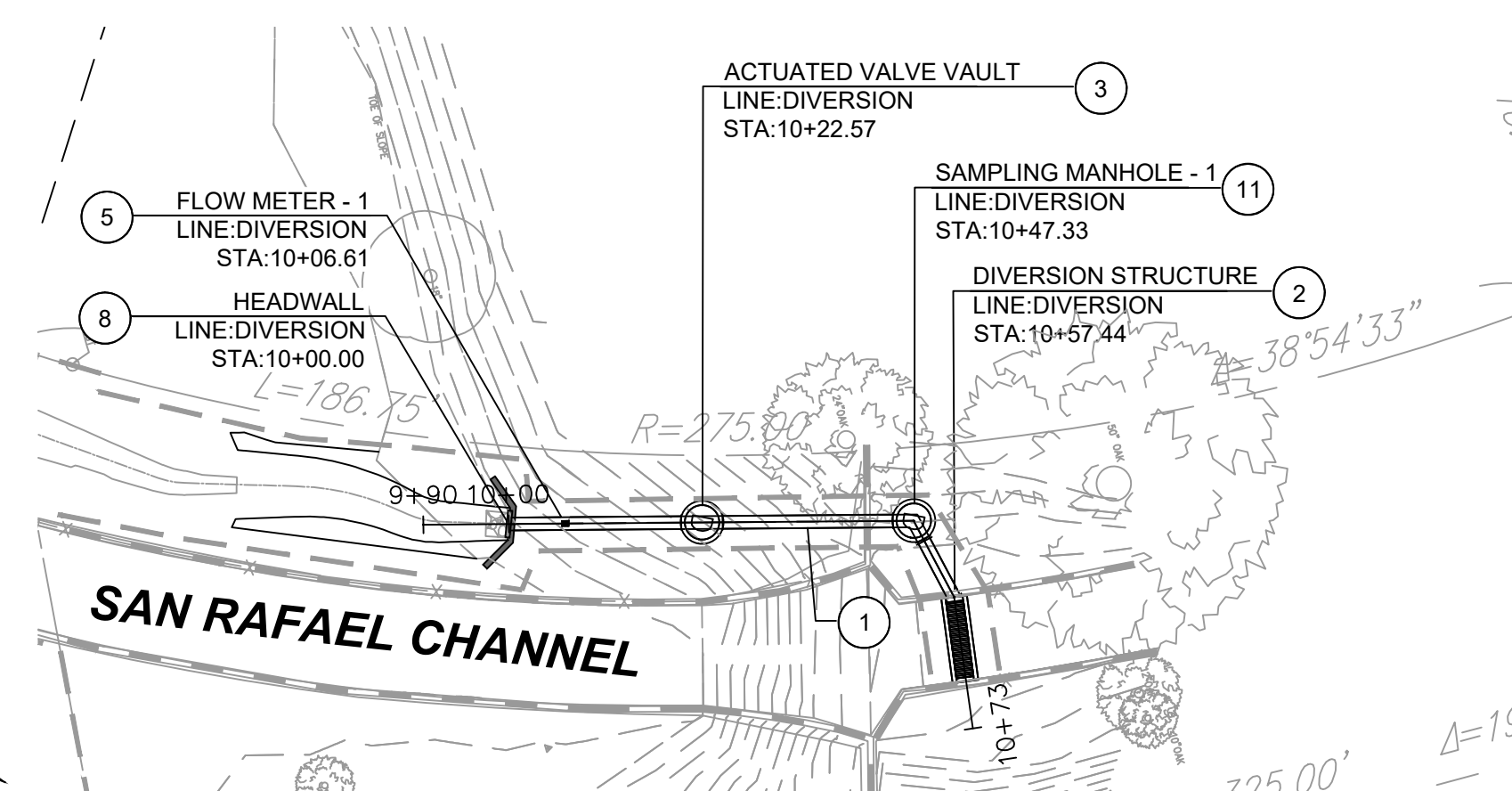
**DIVERSION PROFILE**

**OUTLET PROFILE**

- CONSTRUCTION NOTES**
1. INSTALL 18" RCP DIVERSION PIPE. TRENCHING AND BEDDING PER LADPW 3080-2.
  2. CONSTRUCT CONCRETE DIVERSION STRUCTURE PER SHEET SR-S-1.
  3. INSTALL ACTUATED VALVE. INSTALLATION AND SPECIFICATIONS PER DETAIL 4 ON SHEET SR-C-11.
  4. INSTALL POST-TREATMENT FILTRATION UNIT. INSTALLATION AND SPECIFICATIONS PER DETAIL 1 ON SHEET SR-C-10.
  5. INSTALL AREA-VELOCITY FLOW METER PER MANUFACTURER SPECIFICATION AND RECOMMENDATIONS.
  6. INSTALL ORIFICE OVERFLOW STRUCTURE PER DETAIL 3 ON SHEET SR-C-10.
  7. CONNECT RCP TO EXISTING CHANNEL WALL PER DETAIL SPPWC 335-2.
  8. INSTALL HEADWALL PER DETAIL ON SHEET SR-S-2.
  9. INSTALL 18" DUCTILE IRON PIPE. TRENCHING AND BEDDING PER LADPW 3080-3.
  10. CONSTRUCT MANHOLE PER SPPWC 321-2.
  11. INSTALL SAMPLING MANHOLE PER DETAIL 2 ON SHEET SR-C-10.



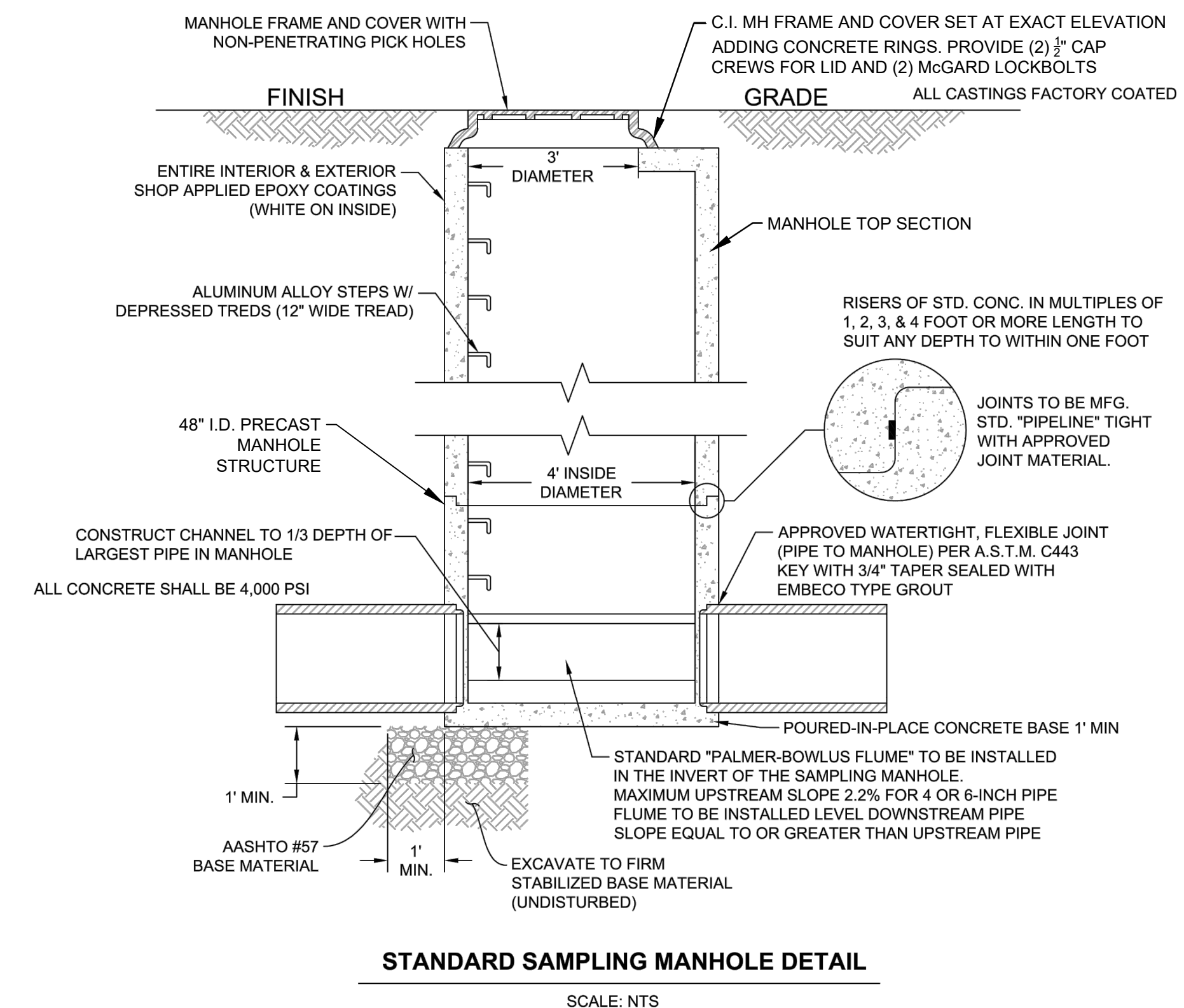
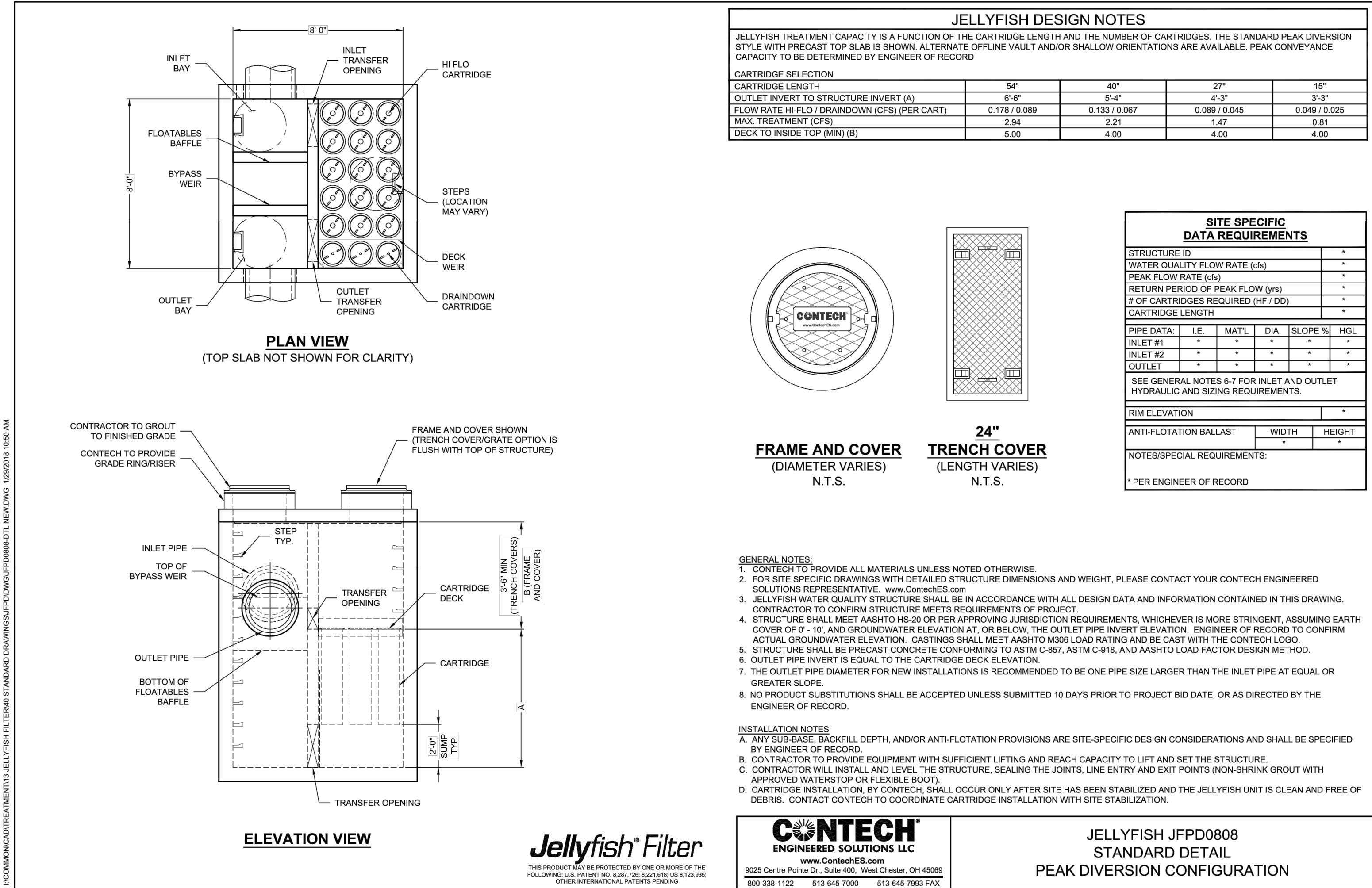
PROFILE SCALE  
 HORIZ.: 1" = 20'  
 VERT.: 1" = 2'



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DRAWN BY AMT		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY AMT	CHECKED BY CAS	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	SHEET 16 OF 46
SHEET TITLE UTILITY PLAN								DWG. NO.	
SCALE AS SHOWN								ACCOUNT NUMBER XXXXXX	

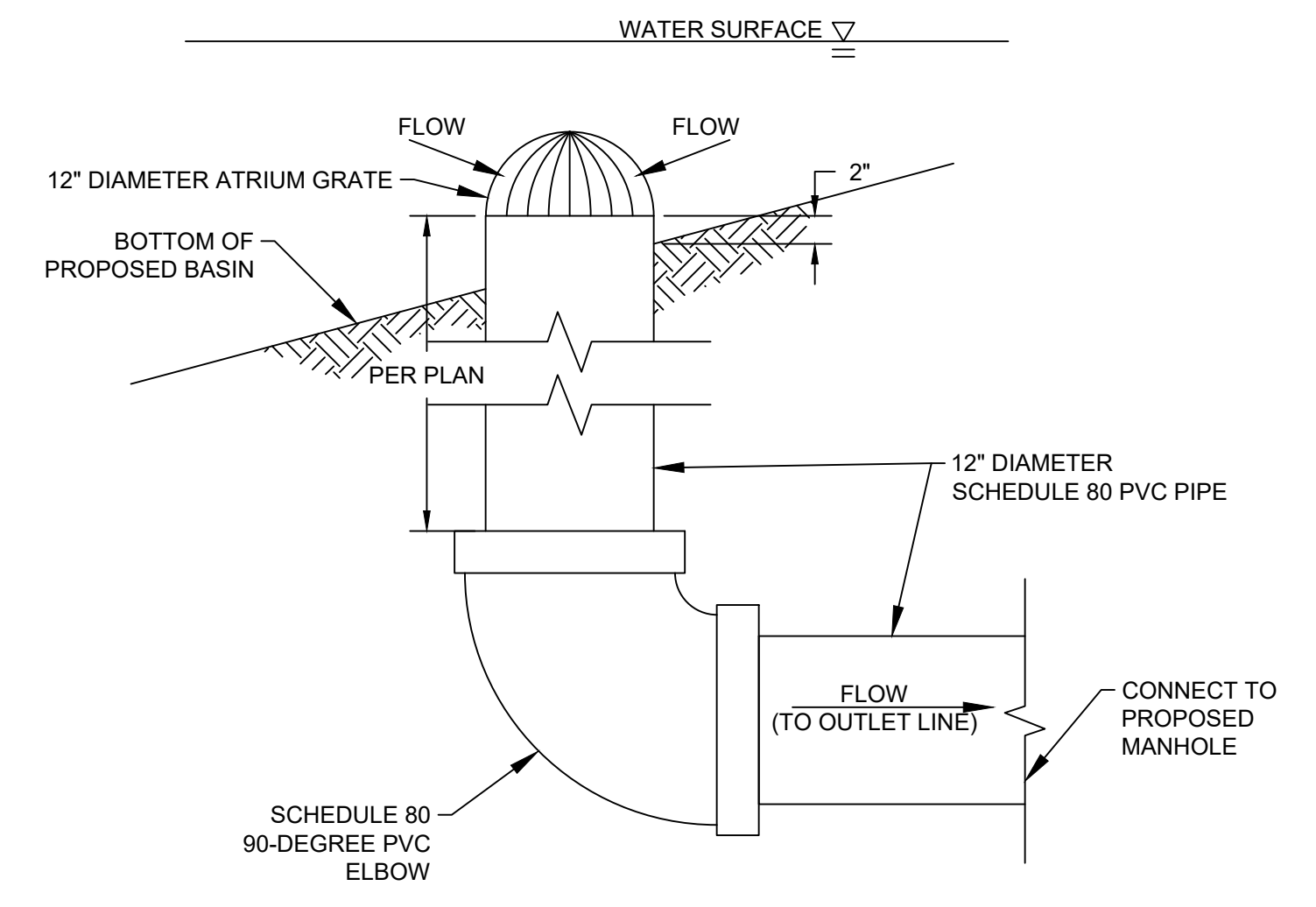
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- NOTES:**
- COAT INTERIOR OF DIP OR RCP GRAVITY MAIN AND DIP FORCE MAINS, SEE SPECIFICATIONS.
  - FOR TRANSITION MANHOLE DETAILS FOR PIPE TO PIPE, SEE SPPWC 340-2.

**1 FILTRATION UNIT DETAIL**  
NTS

**2 SAMPLING MANHOLE DETAIL**  
NTS



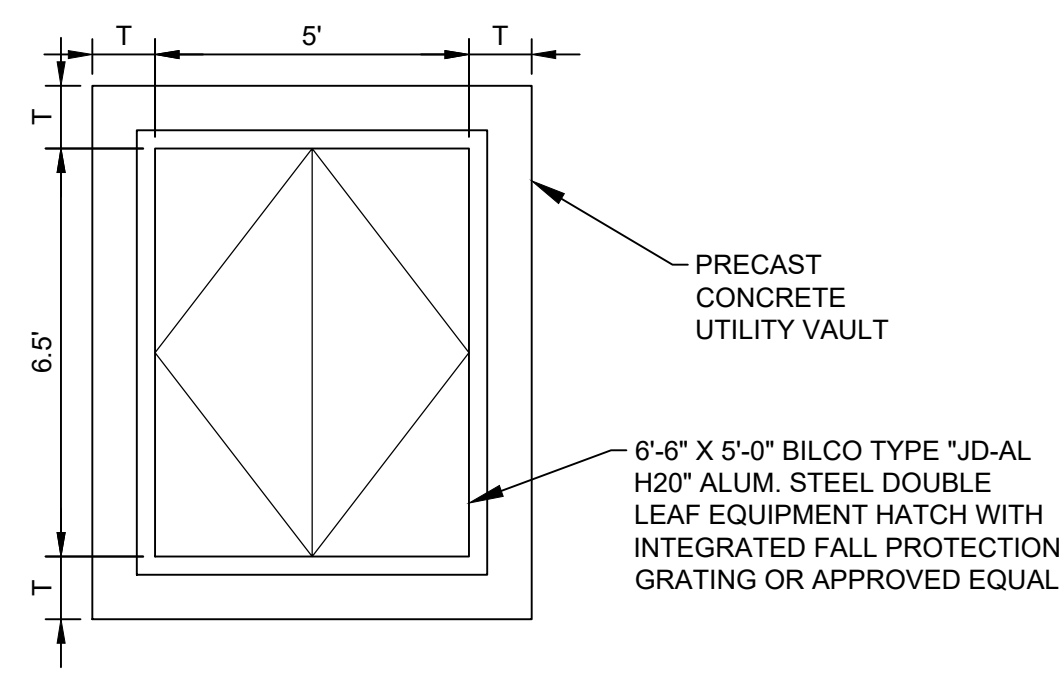
**3 ORIFICE OVERFLOW STRUCTURE DETAIL**  
NTS

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06/03/2024

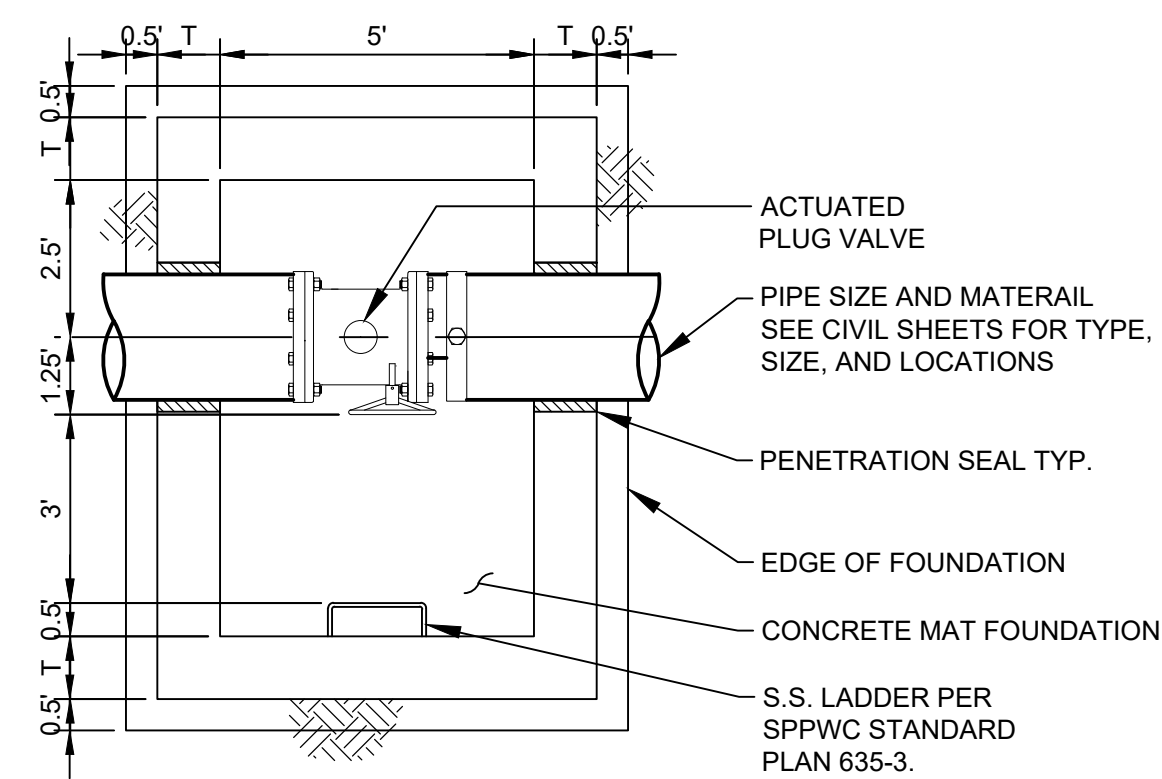
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DESIGNED BY AT							SHEET TITLE <b>DETAILS</b>	17 OF 95
CHECKED BY CAS							SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX
		AS BUILT					DWG. NO.	

Date: July 8, 2022 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_RAFAEL\FINAL PLOTS\CDS\07-8\_SAN\_RAFAEL-DETAILS.DWG

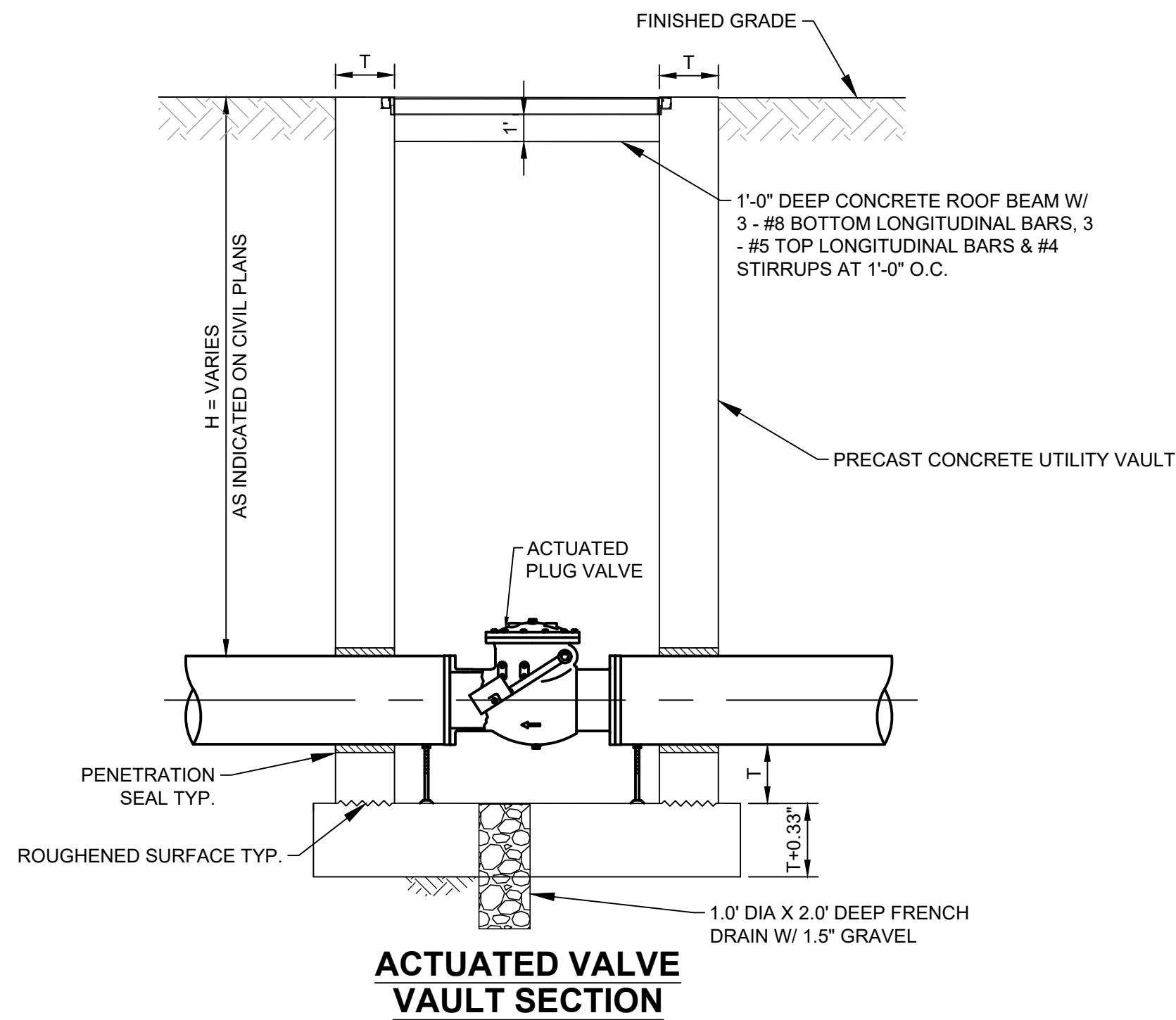
WALL AND FOUNDATION THICKNESS SCHEDULE	
CONCRETE ELEMENT	THICKNESS (IN.)
WALL, HEIGHT (H) ≤ 9	T = 12
WALL, HEIGHT (H) > 9	T = 16
MAT FOUNDATION	T + 4



**ROOF PLAN FOR ACTUATED VALVE VAULT**

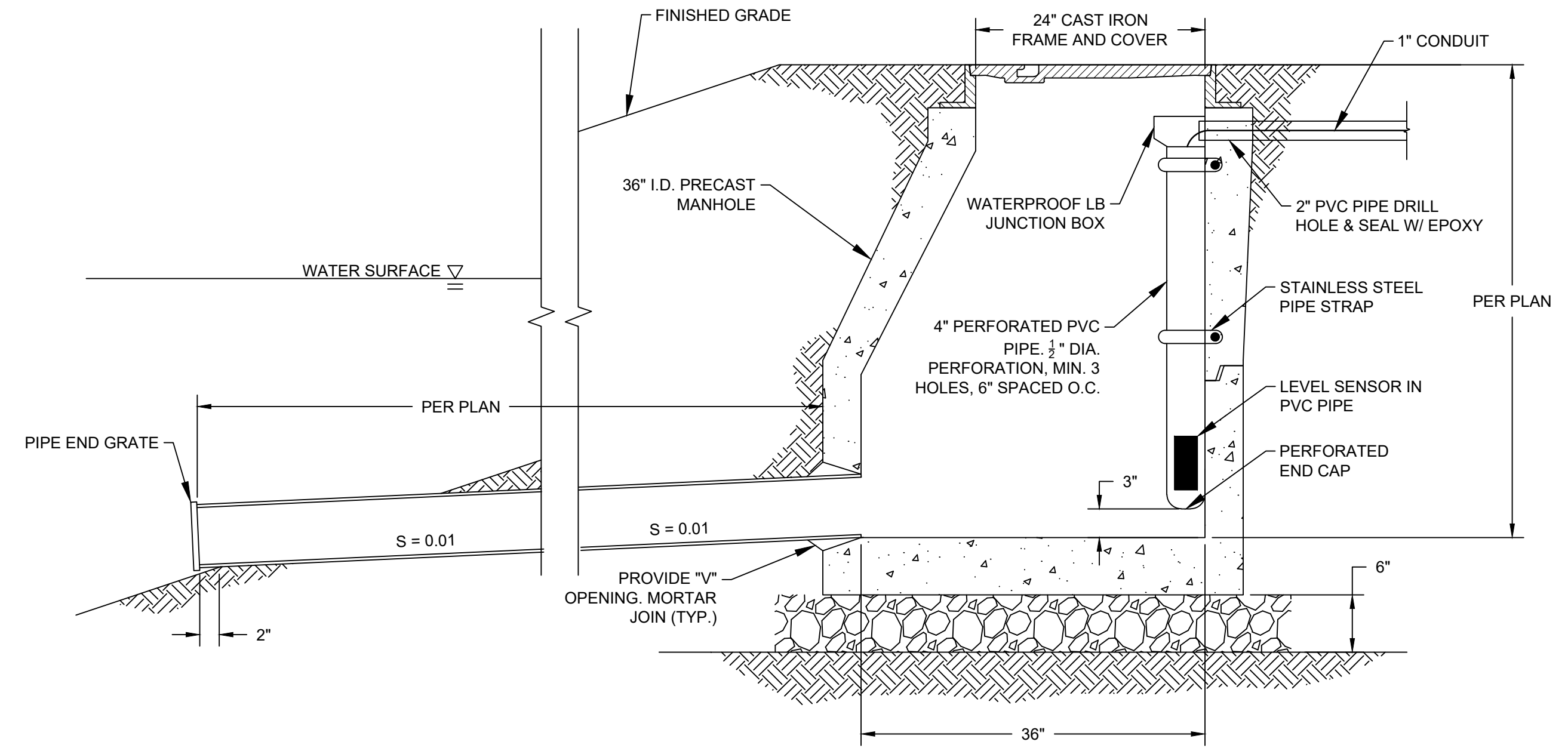


**FOUNDATION PLAN FOR ACTUATED VALVE VAULT**

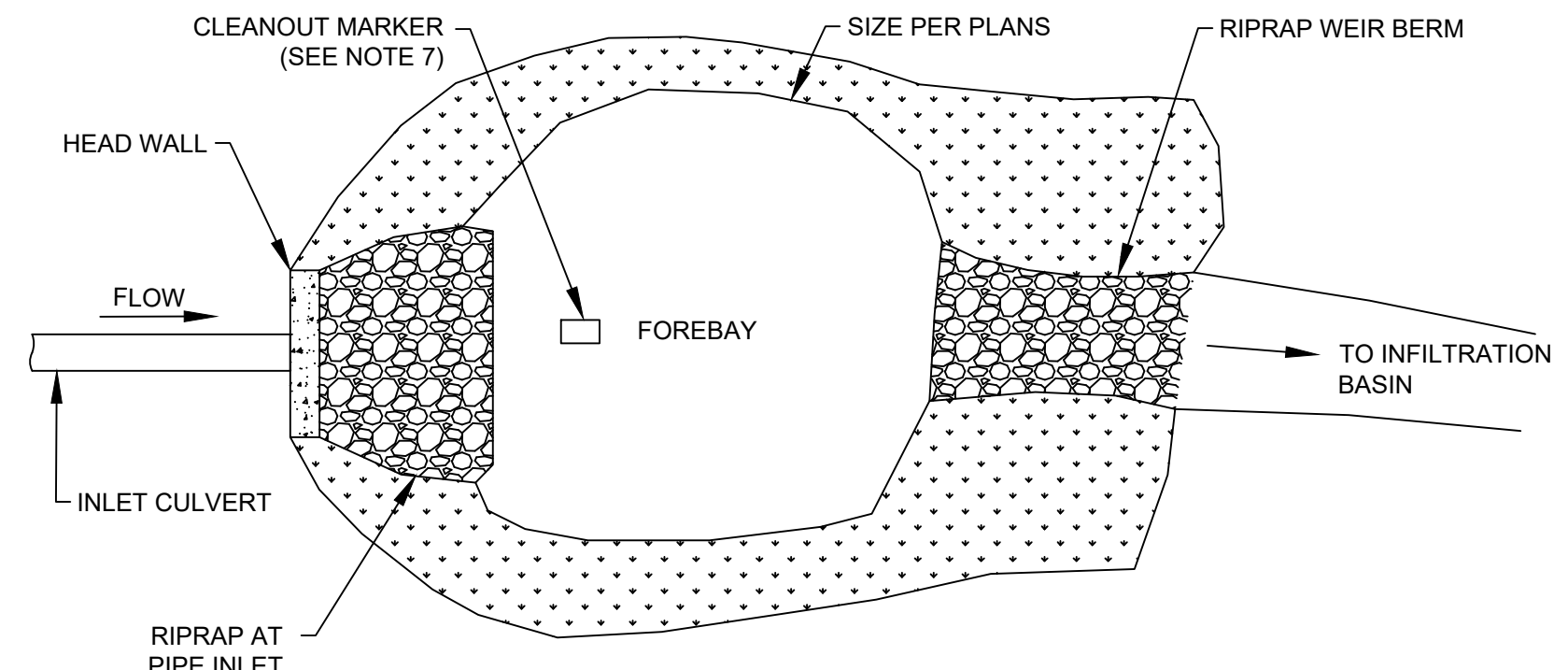


**ACTUATED VALVE VAULT SECTION**

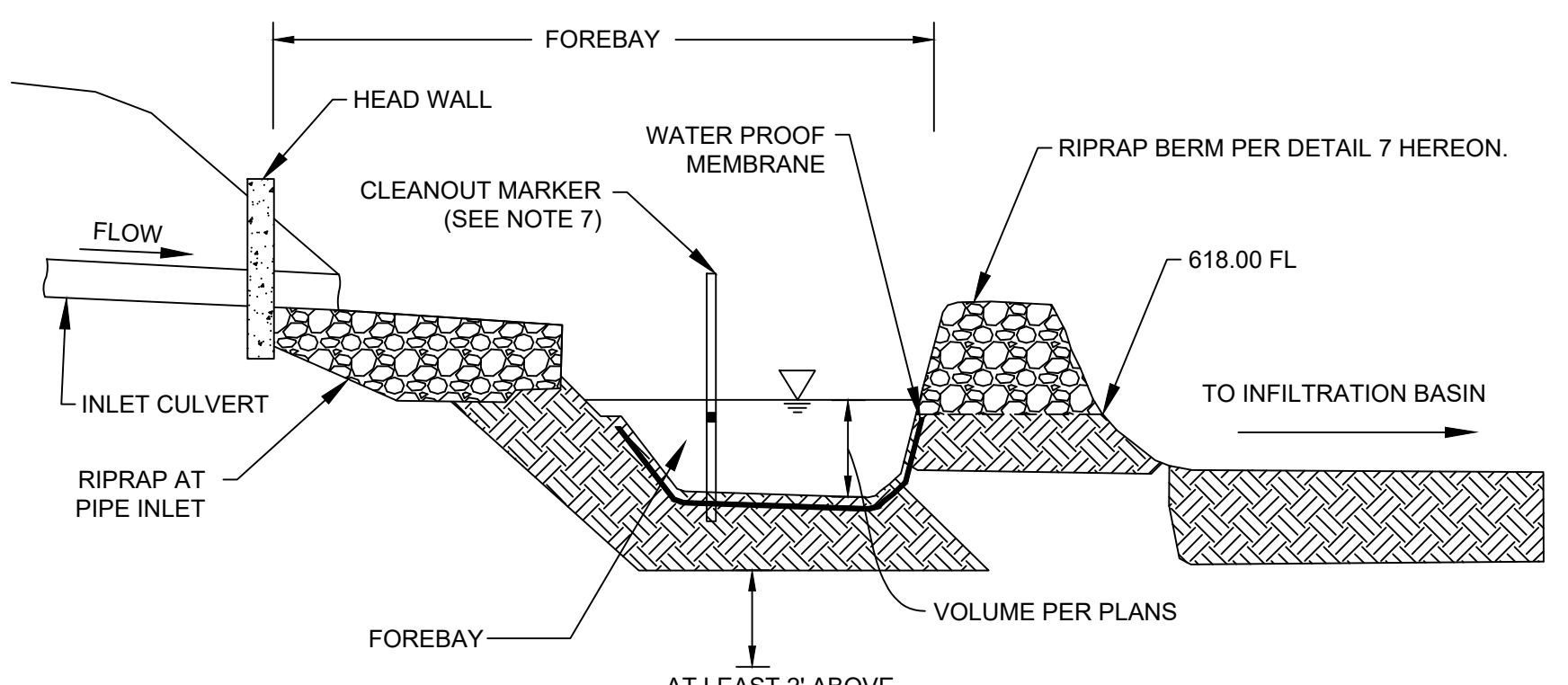
**4 ACTUATED VALVE DETAIL**  
NTS



**5 WATER LEVEL TRANSMITTER VAULT DETAIL**  
NTS



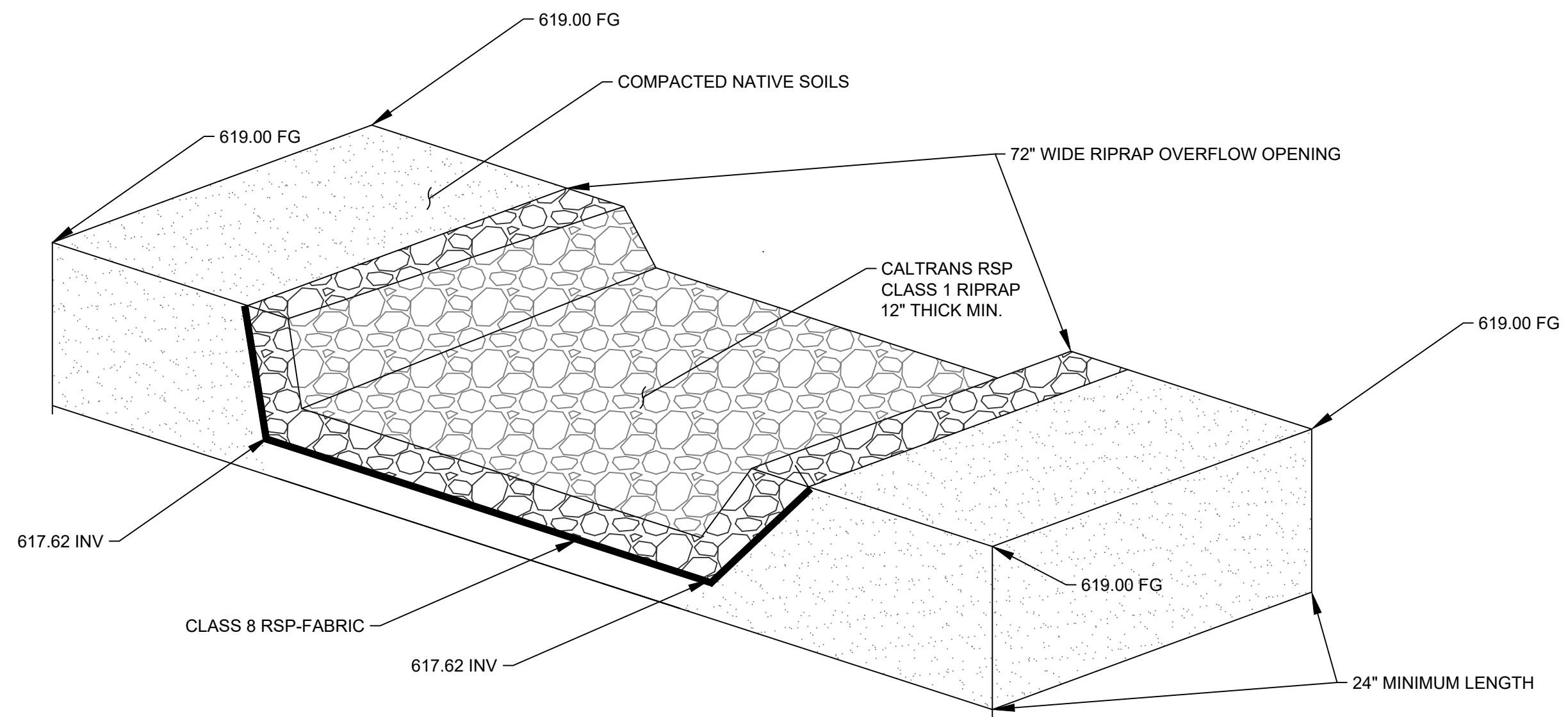
**PLAN VIEW**



**PROFILE VIEW**

**NOTES:**

1. THE MAIN GOAL OF PRETREATMENT FILTERING IS TO CAPTURE FLOATABLE, DEBRIS, GREASE, OILS, SILT AND SEDIMENT WHERE THEY CAN BE EASILY CLEANED AT THE SURFACE OF THE BMP THROUGH REGULAR MAINTENANCE, AND BEFORE THEY HAVE THE OPPORTUNITY TO CLOG THE PRACTICE.
2. WHEN CONCENTRATED FLOW IS DIRECTED TO AN BMP THROUGH CURB TURNOUTS OR PIPE OUTLETS, A SEDIMENT FOREBAY SHALL BE USED TO ALLOW MATERIAL TO BE CAPTURED WHERE IT CAN BE EASILY CLEANED.
3. THE SEDIMENT FOREBAY SHALL BE SIZED TO 0.1 INCH OF RUNOFF PER IMPERVIOUS ACRE OF CONTRIBUTING DRAINAGE AREA. DEPTH SHALL BE DETERMINED BY THE DESIGNER.
4. DIRECT MAINTENANCE ACCESS TO THE FOREBAY MUST BE PROVIDED.
5. EXIT VELOCITIES FROM THE FOREBAY MUST BE NON-EROSIVE. VELOCITIES OVER THE WEIR SHALL BE PROVIDED, IF HIGH RUNOFF VELOCITY IS A POTENTIAL PROBLEM, SOME TYPE OF ENERGY DISSIPATION DEVICE MUST BE INCORPORATED.
6. SEDIMENT REMOVAL IN THE FOREBAY SHALL OCCUR IN ACCORDANCE WITH THE MAINTENANCE AGREEMENT.
7. A FIXED VERTICAL SEDIMENT DEPTH MARKER SHALL BE INSTALLED IN THE FOREBAY TO MEASURE SEDIMENT DEPOSITION OVER TIME. THE MARKER SHALL BE MADE OF DURABLE, NON-CORRODING MATERIAL (NOT STEEL). THE ELEVATION AT WHICH SEDIMENT REMOVAL IS REQUIRED SHALL BE MARKED WITH A LINE IN A CONTRASTING COLOR OR SHADE.
8. ALL DISTURBED AREAS MUST BE IMMEDIATELY STABILIZED AFTER CONSTRUCTION TO MINIMIZE EROSION.



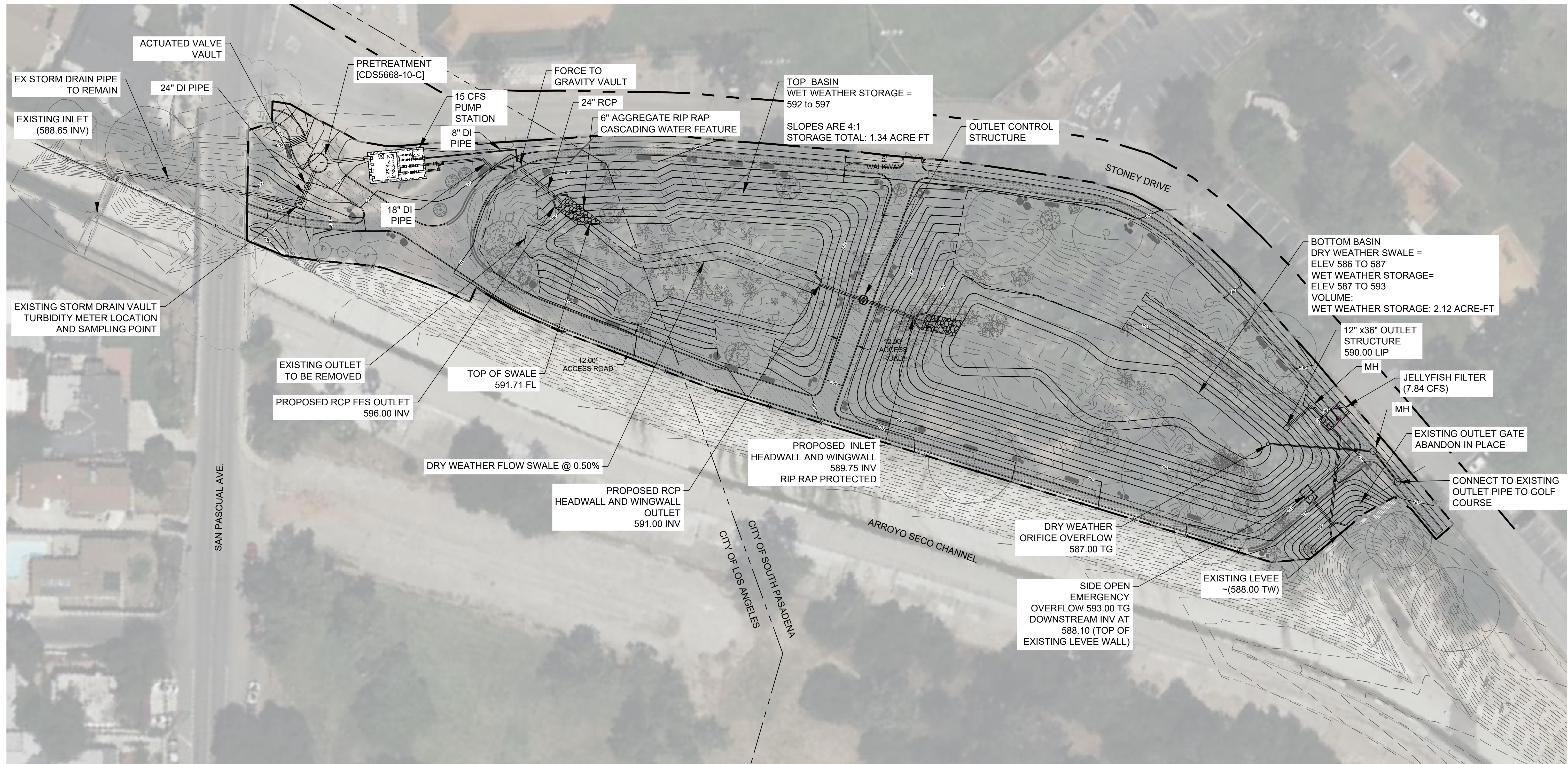
**7 SEDIMENT FOREBAY RIPRAP BERM DETAIL**  
NTS

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06/03/2024

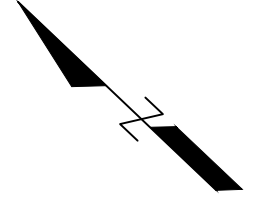
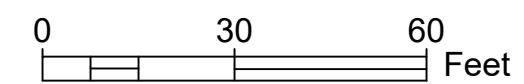
**6 FOREBAY DETAIL**  
NTS

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
AT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	ACCOUNT NUMBER	SHEET
DESIGNED BY							ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	XXXXXX	SR-C-11
AT							SHEET TITLE		18 OF 95
CHECKED BY							DETAILS		DWG. NO.
CAS			AS BUILT				SCALE AS SHOWN		

Date: July 8, 2022 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_RAFAEL\FINAL PLOTS\CDS\07-8\_SAN\_RAFAEL-DETAILS.DWG

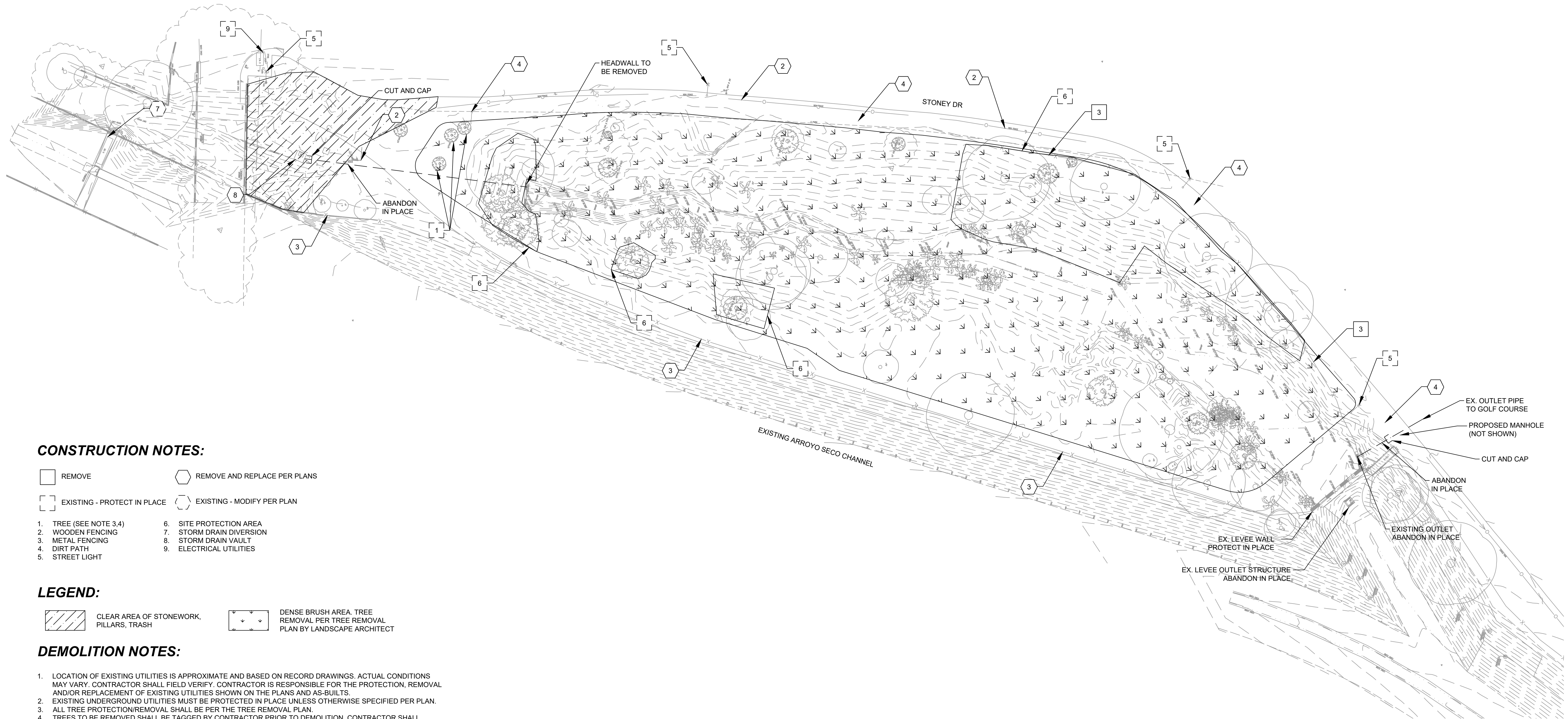


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06/03/2024



DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SHEET	NO.
AMT							SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	52	95
DESIGNED BY							SHEET TITLE	SITE PLAN	
AMT							SCALE	AS SHOWN	ACCOUNT NUMBER XXXXXX
CHECKED BY								DWG. NO.	
CAS			AS BUILT						

Date: April 22, 2020 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_PASCUAL\FINAL PLOTS\C2\_SAN\_PASCUAL-SITE.DWG



**CONSTRUCTION NOTES:**

- REMOVE
- REMOVE AND REPLACE PER PLANS
- EXISTING - PROTECT IN PLACE
- EXISTING - MODIFY PER PLAN

- 1. TREE (SEE NOTE 3.4)
- 2. WOODEN FENCING
- 3. METAL FENCING
- 4. DIRT PATH
- 5. STREET LIGHT
- 6. SITE PROTECTION AREA
- 7. STORM DRAIN DIVERSION
- 8. STORM DRAIN VAULT
- 9. ELECTRICAL UTILITIES

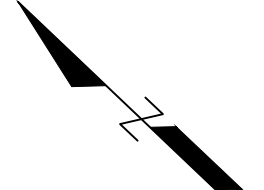
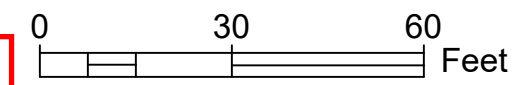
**LEGEND:**

- CLEAR AREA OF STONEMWORK, PILLARS, TRASH
- DENSE BRUSH AREA. TREE REMOVAL PER TREE REMOVAL PLAN BY LANDSCAPE ARCHITECT

**DEMOLITION NOTES:**

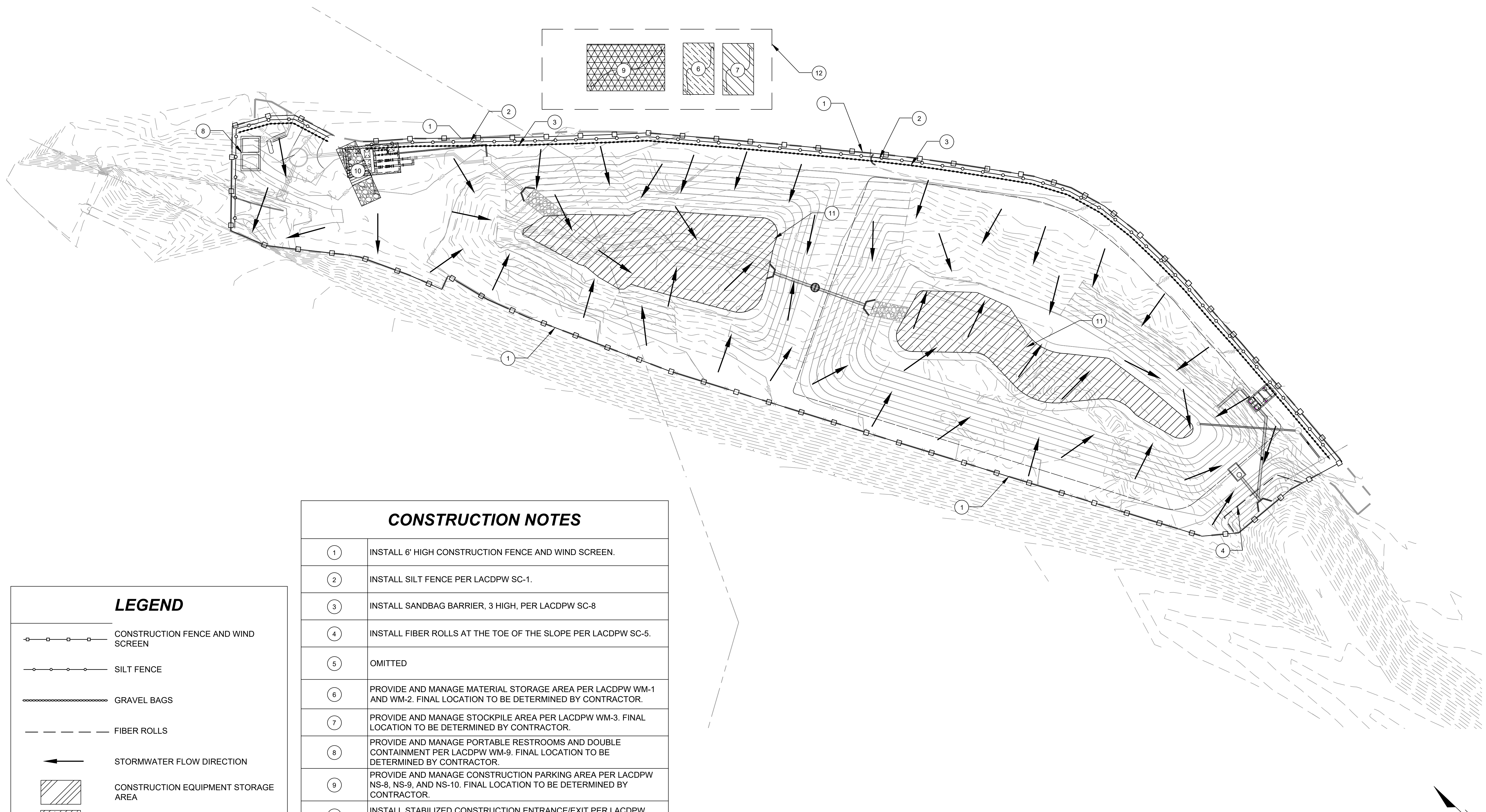
1. LOCATION OF EXISTING UTILITIES IS APPROXIMATE AND BASED ON RECORD DRAWINGS. ACTUAL CONDITIONS MAY VARY. CONTRACTOR SHALL FIELD VERIFY. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION, REMOVAL AND/OR REPLACEMENT OF EXISTING UTILITIES SHOWN ON THE PLANS AND AS-BUILTS.
2. EXISTING UNDERGROUND UTILITIES MUST BE PROTECTED IN PLACE UNLESS OTHERWISE SPECIFIED PER PLAN.
3. ALL TREE PROTECTION/REMOVAL SHALL BE PER THE TREE REMOVAL PLAN.
4. TREES TO BE REMOVED SHALL BE TAGGED BY CONTRACTOR PRIOR TO DEMOLITION. CONTRACTOR SHALL REMOVE TREES AFTER APPROVAL FROM THE CITY. NEW TREES SHALL BE INSTALLED PER THE LANDSCAPE PLANTING PLANS.
5. CONTRACTOR TO FIELD VERIFY UTILITY LINE PRIOR TO EXCAVATION.
6. REMOVE AND REINSTALL IRRIGATION LINES AND IRRIGATION CONTROL VALVES AS NEEDED. ANY IRRIGATION LINES NOT SHOWN ON THE DEMOLITION PLANS THAT ARE IMPACTED BY CONSTRUCTION SHALL BE REMOVED AND REPLACED IN KIND. ADJUST SPRINKLER HEAD ELEVATIONS TO MATCH NEW FINISHED GRADES SHOWN ON THE GRADING PLAN.

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06/03/2024



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AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	SHEET	SP-C-2
DESIGNED BY							SHEET TITLE	DEMOLITION PLAN	53	OF 95
AMT							SCALE	AS SHOWN	DWG. NO.	
CHECKED BY							ACCOUNT NUMBER	XXXXXX		
CAS			AS BUILT							

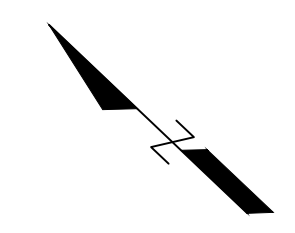
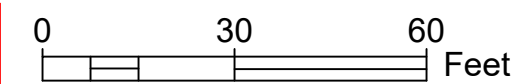




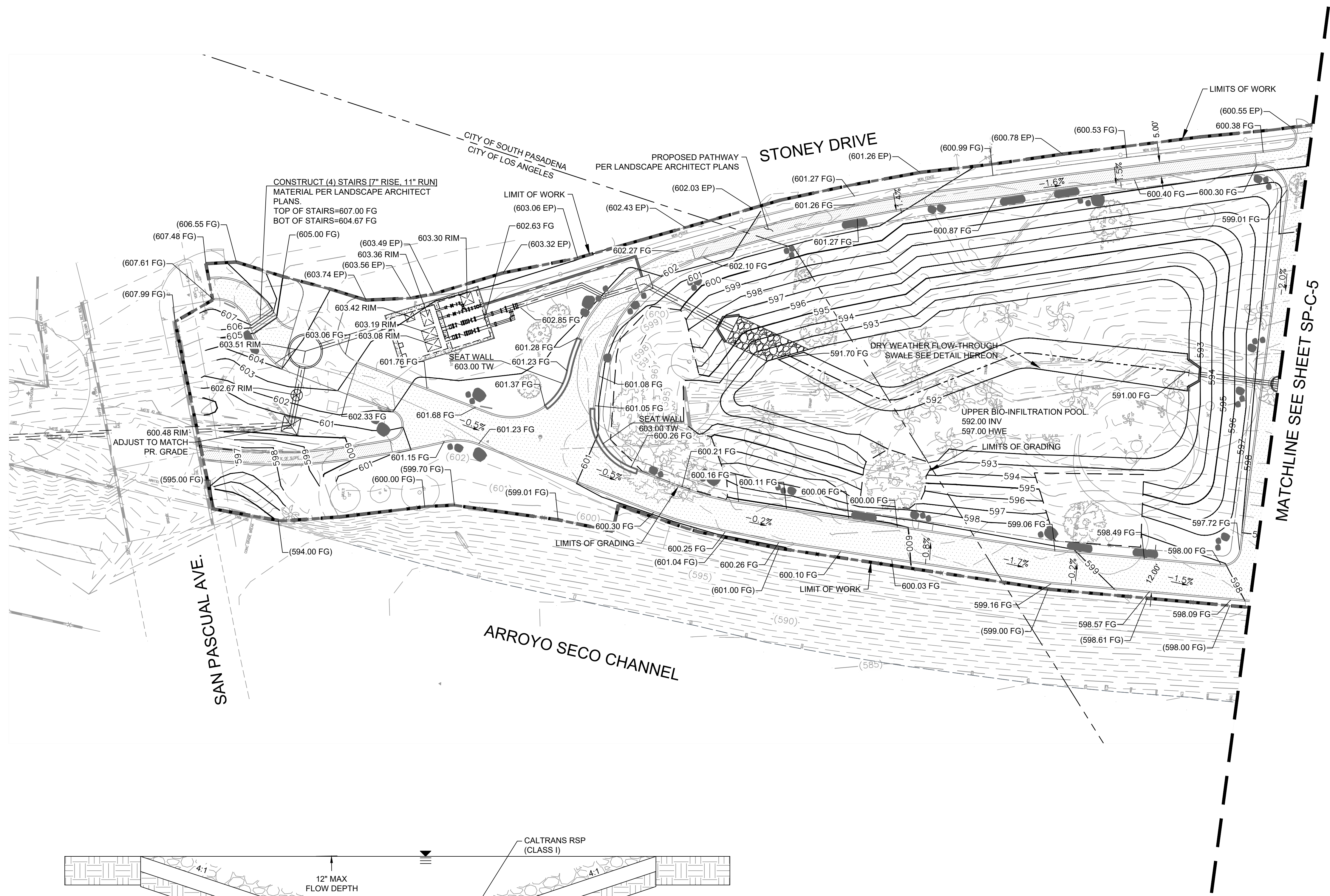
LEGEND	
	CONSTRUCTION FENCE AND WIND SCREEN
	SILT FENCE
	GRAVEL BAGS
	FIBER ROLLS
	STORMWATER FLOW DIRECTION
	CONSTRUCTION EQUIPMENT STORAGE AREA
	MATERIAL STORAGE AREA
	STOCKPILE AREA
	CONSTRUCTION PARKING AREA
	STABILIZED CONSTRUCTION ENTRANCE/EXIT

CONSTRUCTION NOTES	
①	INSTALL 6' HIGH CONSTRUCTION FENCE AND WIND SCREEN.
②	INSTALL SILT FENCE PER LACDPW SC-1.
③	INSTALL SANDBAG BARRIER, 3 HIGH, PER LACDPW SC-8
④	INSTALL FIBER ROLLS AT THE TOE OF THE SLOPE PER LACDPW SC-5.
⑤	OMITTED
⑥	PROVIDE AND MANAGE MATERIAL STORAGE AREA PER LACDPW WM-1 AND WM-2. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
⑦	PROVIDE AND MANAGE STOCKPILE AREA PER LACDPW WM-3. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
⑧	PROVIDE AND MANAGE PORTABLE RESTROOMS AND DOUBLE CONTAINMENT PER LACDPW WM-9. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
⑨	PROVIDE AND MANAGE CONSTRUCTION PARKING AREA PER LACDPW NS-8, NS-9, AND NS-10. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
⑩	INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT PER LACDPW TC-1.
⑪	IF BASIN DOES NOT DRAIN ADEQUATELY OR TIMELY (LESS THAN 72 HOURS) VIA INFILTRATION FOLLOWING A RAIN EVENT, DEWATERING SHOULD BE CONDUCTED BY THE CONTRACTOR IN ACCORDANCE WITH APPROPRIATE DEWATERING BMPS (SEE NS-2) AND IN ACCORDANCE WITH LOCAL PERMITS AS APPLICABLE.
⑫	IF ADEQUATE STORAGE SPACE IS NOT AVAILABLE ON-SITE, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND ACQUIRE ADDITIONAL STORAGE SPACE OFF-SITE.

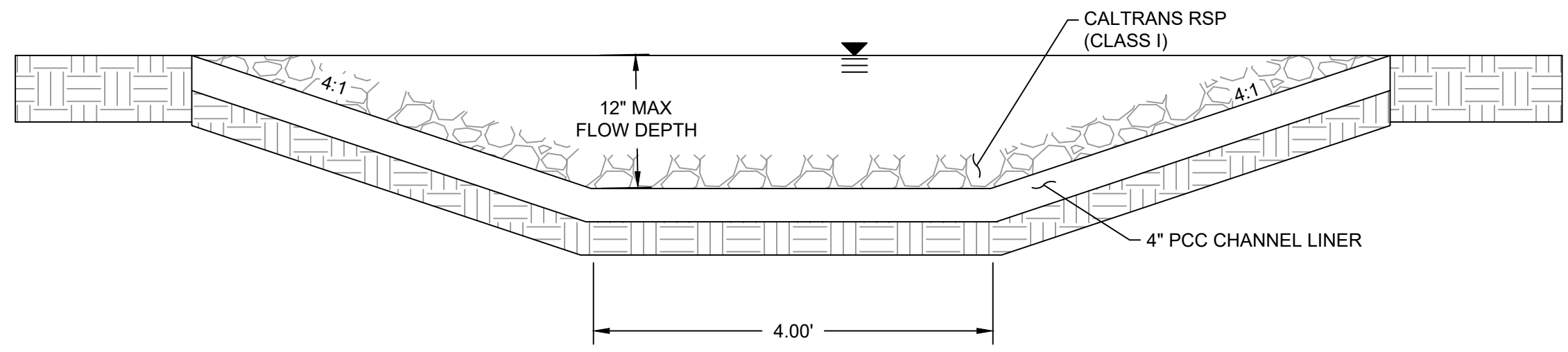
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06/03/2024



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DESIGNED BY AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SP-C-3
CHECKED BY CAS							SHEET TITLE	EROSION CONTROL PLAN		54 OF 95	
			AS BUILT				SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.



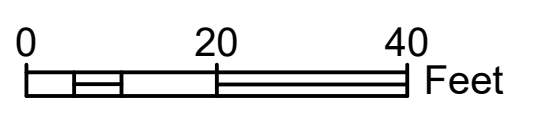
- GRADING NOTES:**
1. PROPOSED GRADING SHALL MATCH EXISTING GRADES AT THE LIMIT OF WORK. WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK AND ENSURE NO PONDING AREAS ARE CREATED.
  2. GRADE ALL AREAS TO DRAIN
  3. PROPOSED WALKWAYS SHALL BE CONSTRUCTED WITH A CROSS SLOPE OF NO MORE THAN 2.0% AND A LONGITUDINAL SLOPE OF NO MORE THAN 5.0%.
  4. CONTRACTORS SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS AND STRUCTURES.
  5. CONTRACTOR SHALL ADJUST UTILITY ELEMENTS MEANT TO BE FLUSH WITH GRADE (I.E. UTILITY MANHOLES, CATCH BASINS, ETC.) THAT ARE AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON THE PLANS OR NOT.



TYPICAL DRY WEATHER SWALE SECTION  
SCALE: NTS

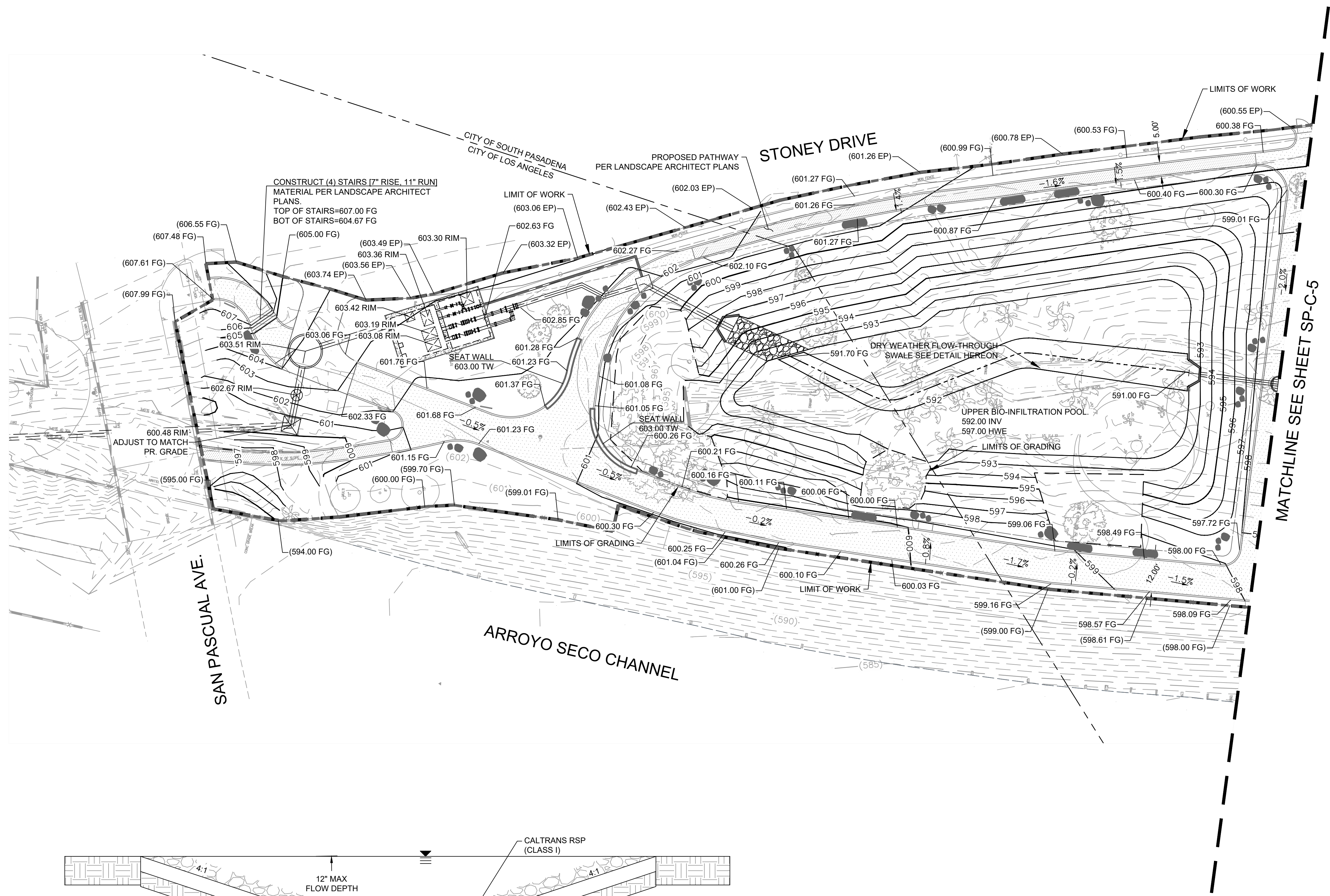
**PRELIMINARY - NOT FOR CONSTRUCTION**

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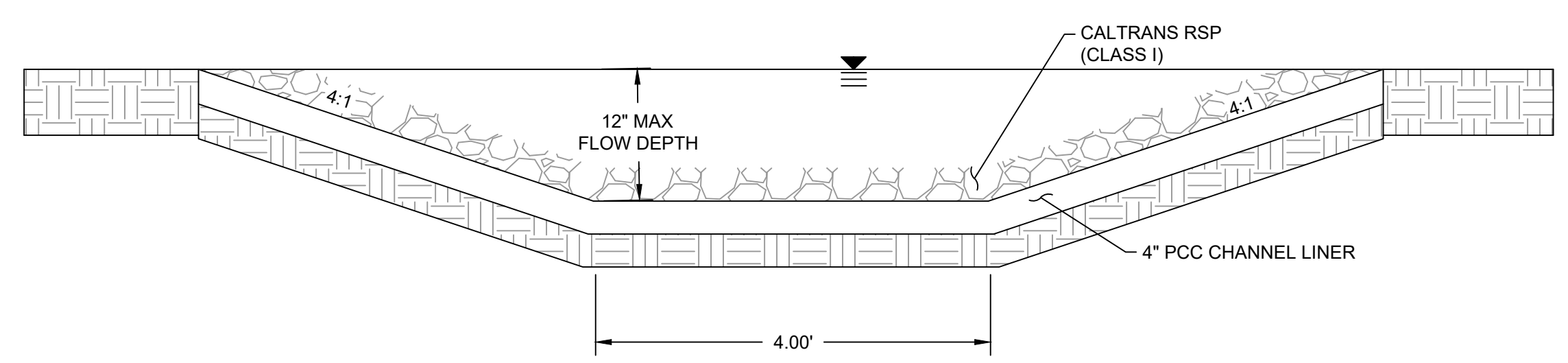


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AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SP-C-4	
DESIGNED BY							SHEET TITLE	GRADING PLAN		55 OF 95		
AMT							SCALE	AS SHOWN		ACCOUNT NUMBER	XXXXXX	
CHECKED BY									DWG. NO.			
CAS			AS BUILT									



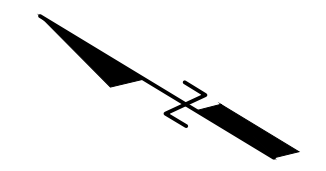
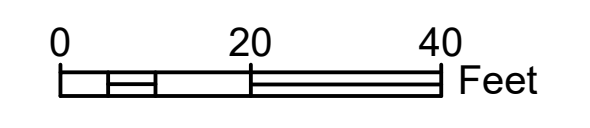


- GRADING NOTES:**
1. PROPOSED GRADING SHALL MATCH EXISTING GRADES AT THE LIMIT OF WORK. WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK AND ENSURE NO PONDING AREAS ARE CREATED.
  2. GRADE ALL AREAS TO DRAIN
  3. PROPOSED WALKWAYS SHALL BE CONSTRUCTED WITH A CROSS SLOPE OF NO MORE THAN 2.0% AND A LONGITUDINAL SLOPE OF NO MORE THAN 5.0%.
  4. CONTRACTORS SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS AND STRUCTURES.
  5. CONTRACTOR SHALL ADJUST UTILITY ELEMENTS MEANT TO BE FLUSH WITH GRADE (I.E. UTILITY MANHOLES, CATCH BASINS, ETC.) THAT ARE AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON THE PLANS OR NOT.



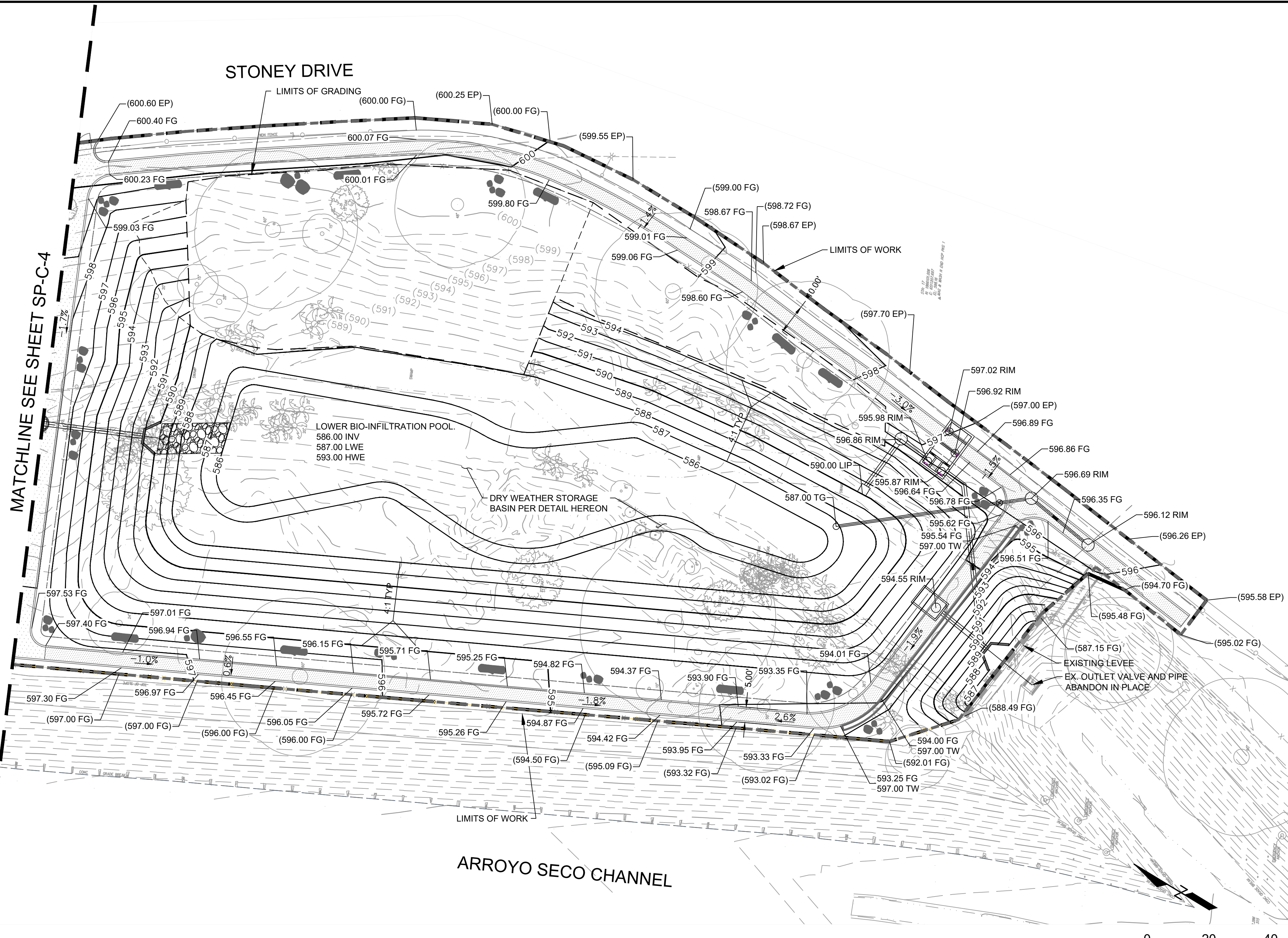
TYPICAL DRY WEATHER SWALE SECTION  
SCALE: NTS

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024



DRAWN BY					REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SP-C-5	
DESIGNED BY							SHEET TITLE	GRADING PLAN		56 OF 95		
AMT							SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.	
CHECKED BY												
CAS			AS BUILT									

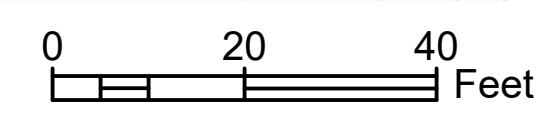
STONEY DRIVE



- GRADING NOTES:**
1. PROPOSED GRADING SHALL MATCH EXISTING GRADES AT THE LIMIT OF WORK. WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK AND ENSURE NO PONDING AREAS ARE CREATED.
  2. GRADE ALL AREAS TO DRAIN
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  4. CONTRACTORS SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS AND STRUCTURES.
  5. CONTRACTOR SHALL ADJUST UTILITY ELEMENTS MEANT TO BE FLUSH WITH GRADE (I.E. UTILITY MANHOLES, CATCH BASINS, ETC.) THAT ARE AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON THE PLANS OR NOT.

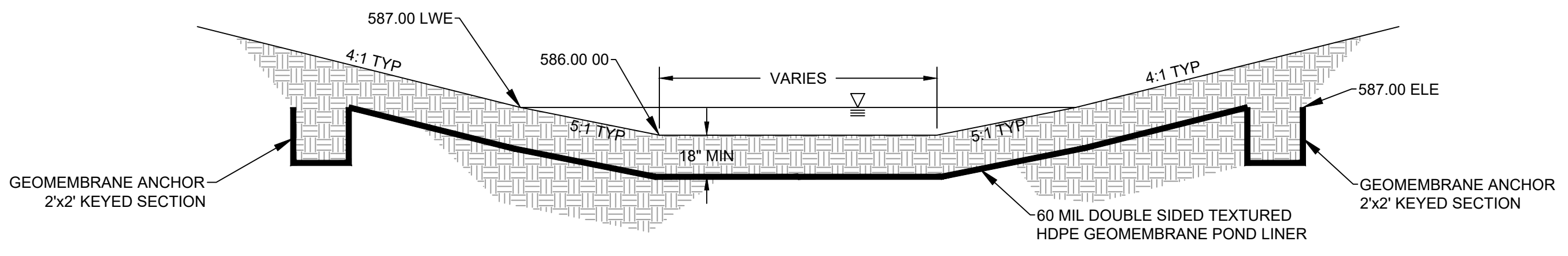
MATCHLINE SEE SHEET SP-C-4

ARROYO SECO CHANNEL



EARTHWORK QUANTITIES		
CUT (CY)	FILL (CY)	NET (CY)
3766	2310	1455

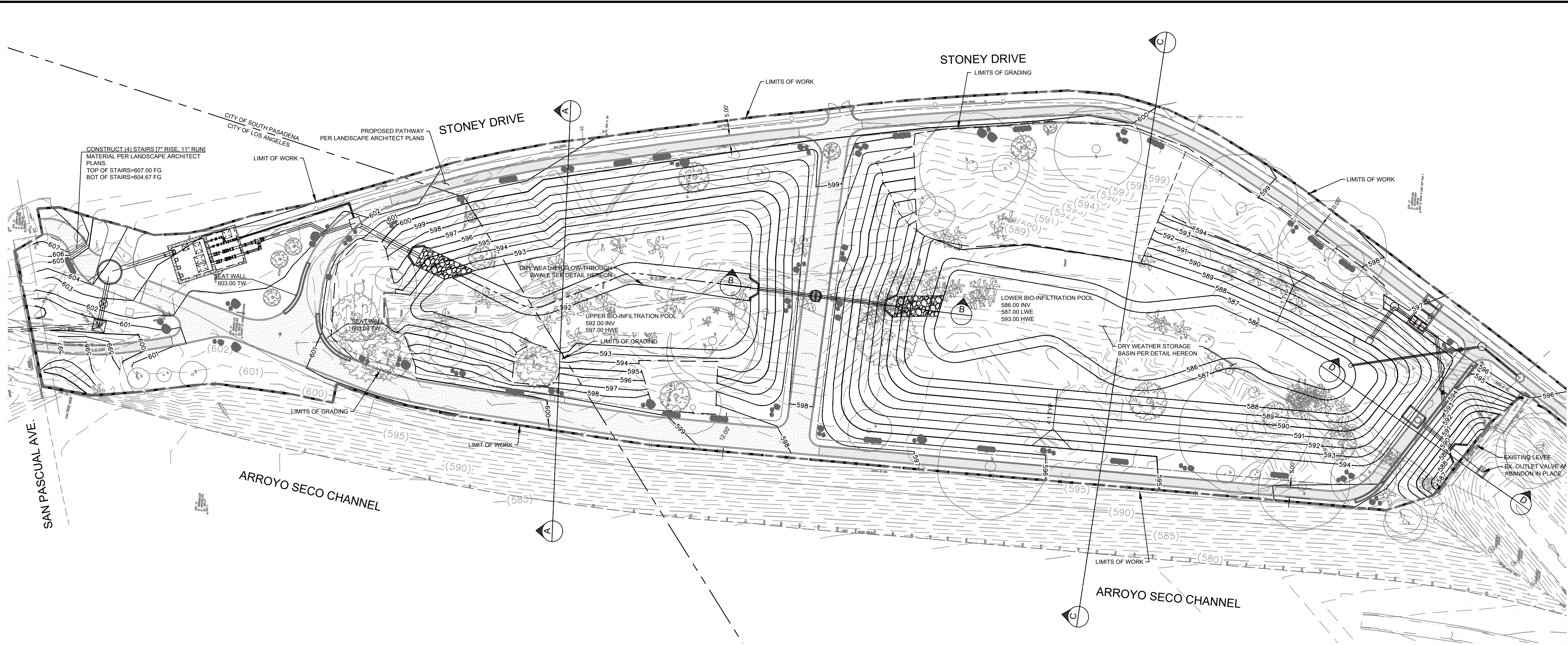
NOTE: CUT/FILL REPORT CONTAINS RAW CALCULATED NUMBERS THAT DO NOT ACCOUNT FOR SHRINKAGE/SWELLING OF SOILS



TYPICAL DRY WEATHER STORAGE BASIN SECTION  
SCALE: NTS

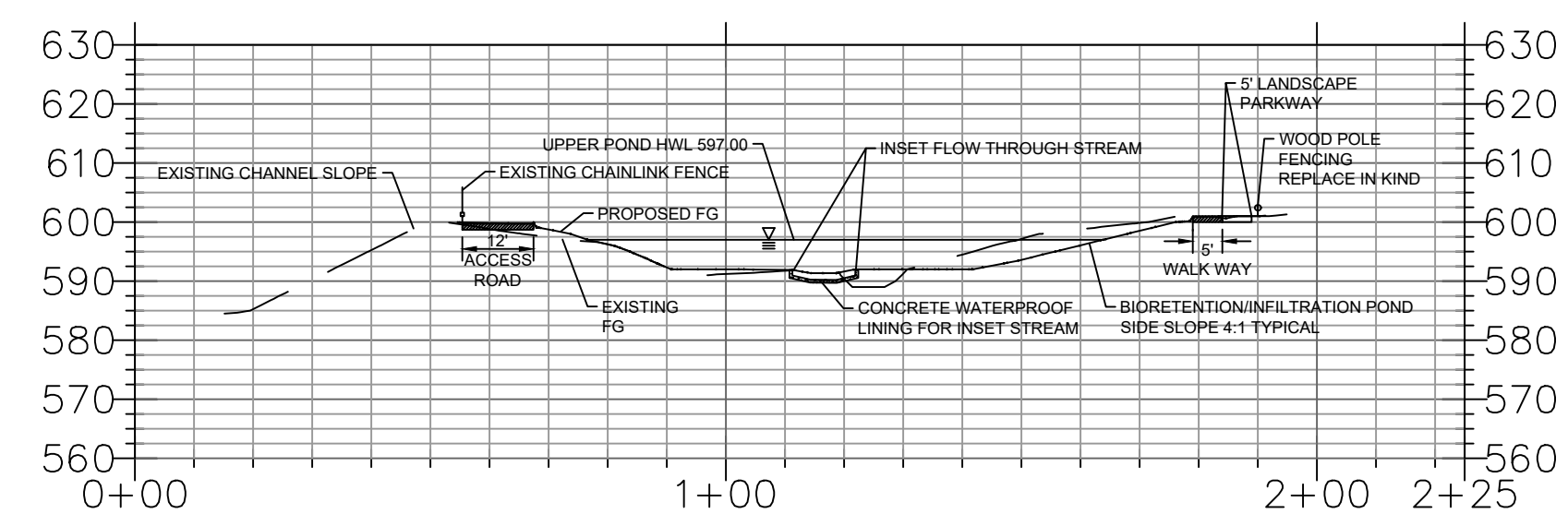
**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				
MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SP-C-6
AMT						SHEET TITLE	GRADING PLAN		57	OF 95
AMT						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.
CAS		AS BUILT								

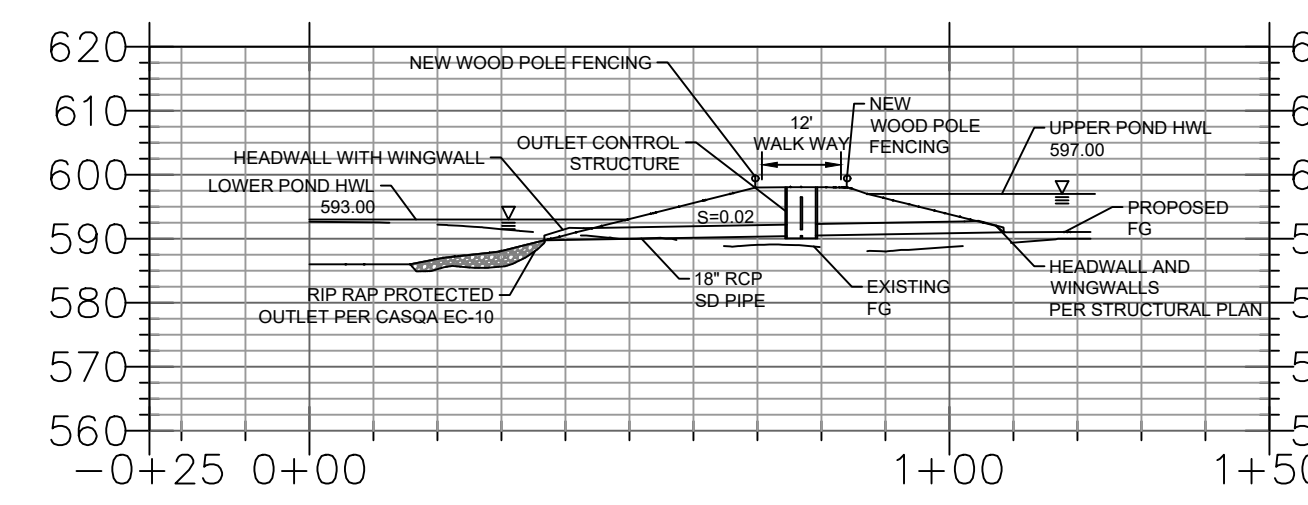


PLAN VIEW  
SCALE: 1"=30'

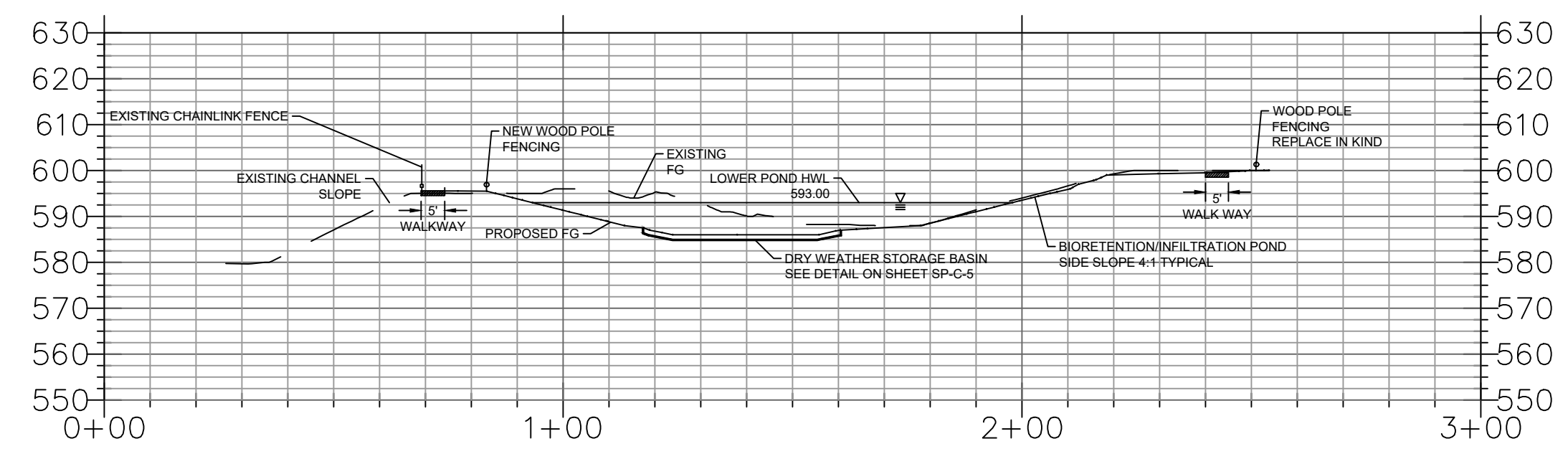
SECTION A-A



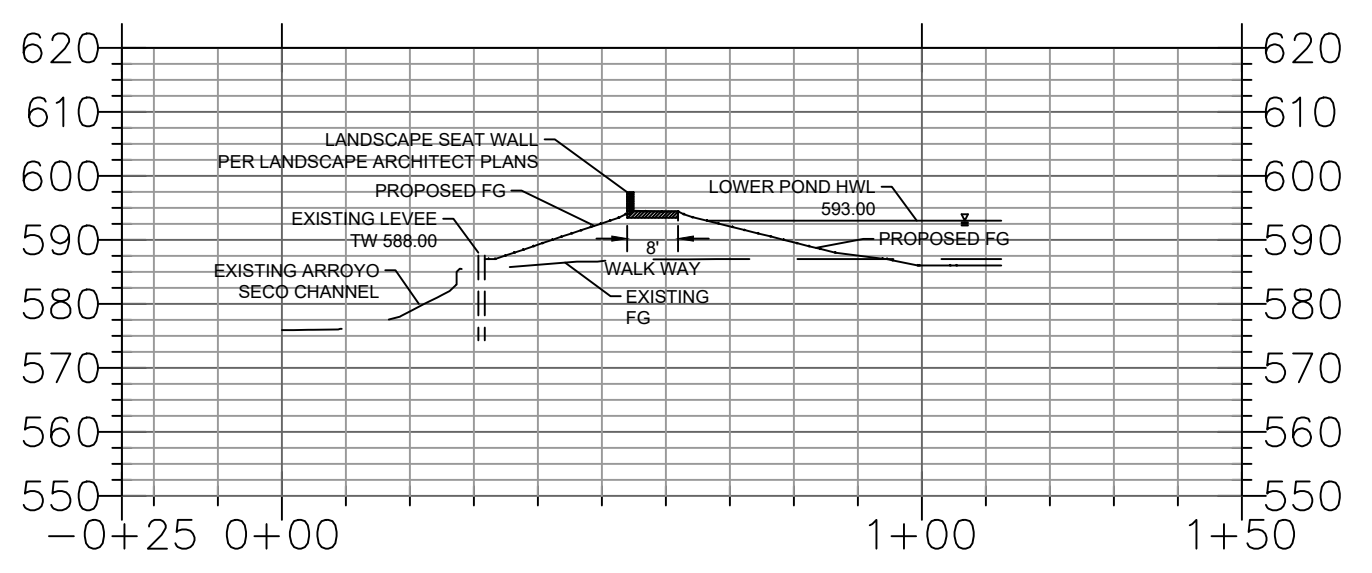
SECTION B-B



SECTION C-C

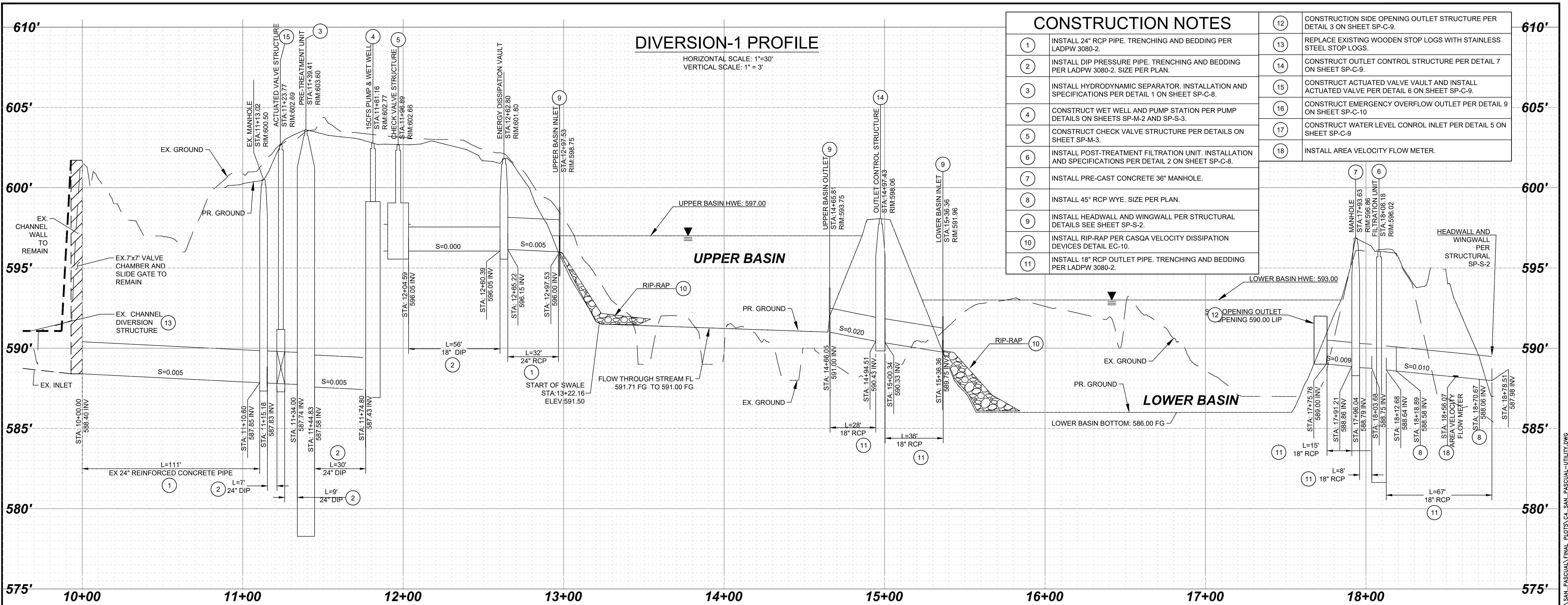


SECTION D-D

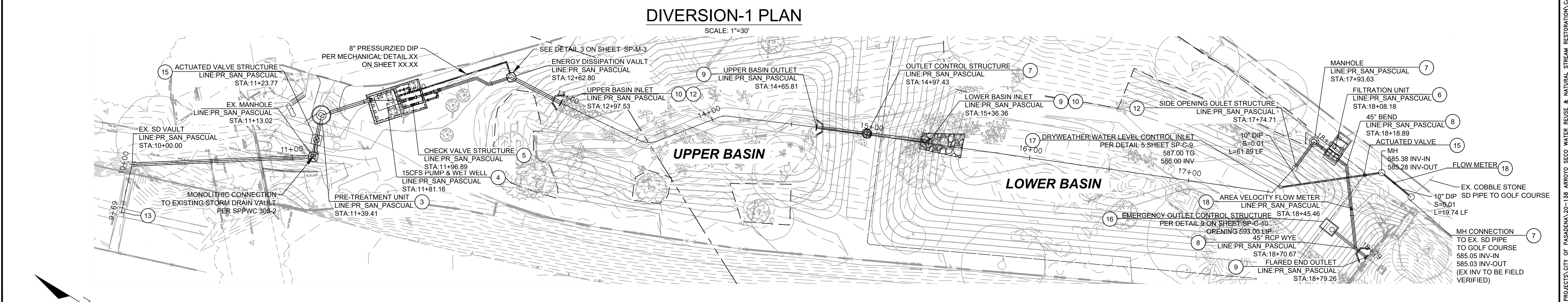


**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY AMT		REVISIONS			CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	SHEET SP-C-7
CHECKED BY CAS							SHEET TITLE GRADING SECTION PLAN	58 OF 95
			AS BUILT				SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX
								DWG. NO.



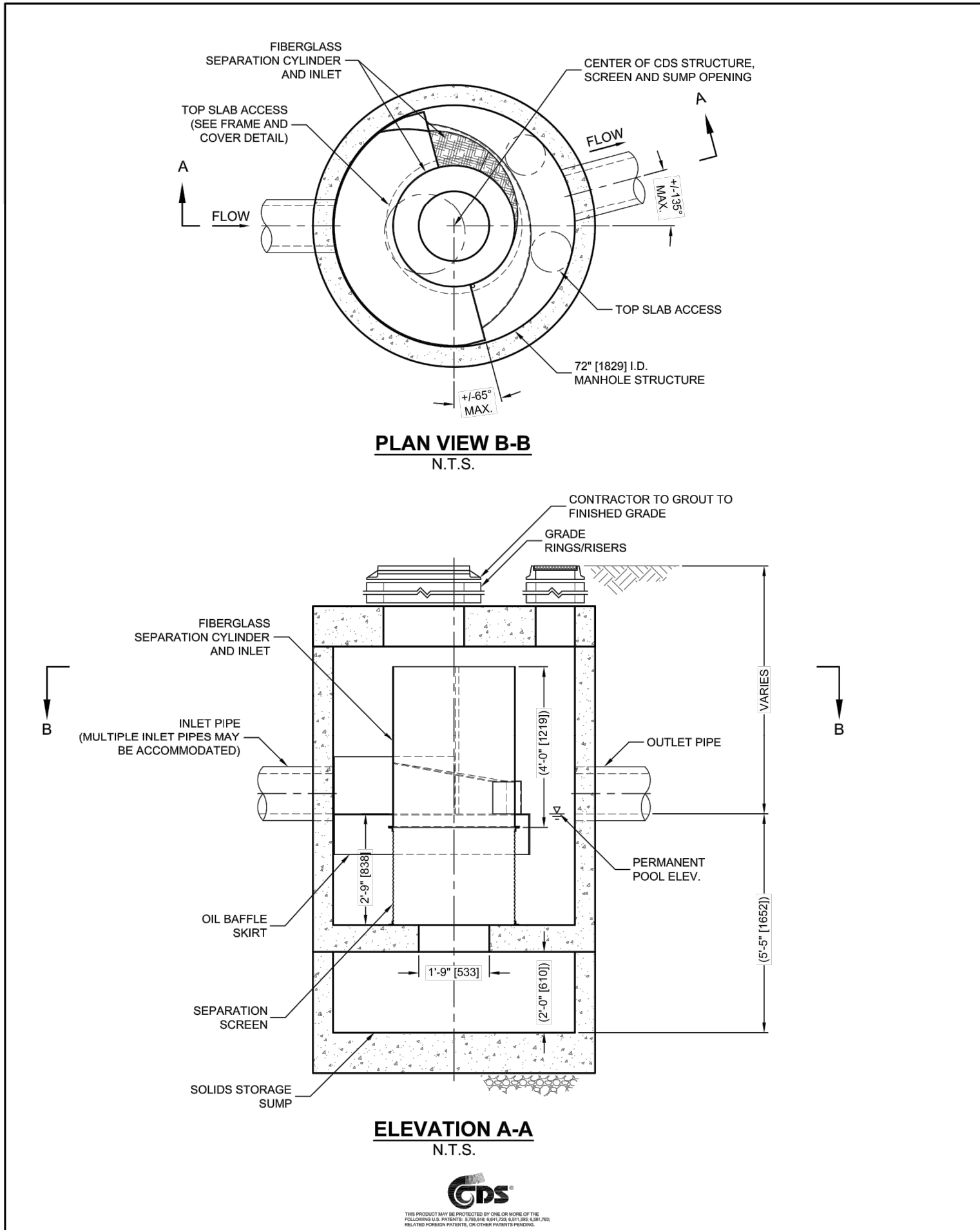
CONSTRUCTION NOTES	
1	INSTALL 24" RCP PIPE. TRENCHING AND BEDDING PER LADPW 3080-2.
2	INSTALL DIP PRESSURE PIPE. TRENCHING AND BEDDING PER LADPW 3080-2. SIZE PER PLAN.
3	INSTALL HYDRODYNAMIC SEPARATOR. INSTALLATION AND SPECIFICATIONS PER DETAIL 1 ON SHEET SP-C-8.
4	CONSTRUCT WET WELL AND PUMP STATION PER PUMP DETAILS ON SHEETS SP-M-2 AND SP-S-3.
5	CONSTRUCT CHECK VALVE STRUCTURE PER DETAILS ON SHEET SP-M-3.
6	INSTALL POST-TREATMENT FILTRATION UNIT. INSTALLATION AND SPECIFICATIONS PER DETAIL 2 ON SHEET SP-C-8.
7	INSTALL PRE-CAST CONCRETE 36" MANHOLE.
8	INSTALL 45" RCP WYE. SIZE PER PLAN.
9	INSTALL HEADWALL AND WINGWALL PER STRUCTURAL DETAILS SEE SHEET SP-S-2.
10	INSTALL RIP-RAP PER CASQA VELOCITY DISSIPATION DEVICES DETAIL EC-10.
11	INSTALL 18" RCP OUTLET PIPE. TRENCHING AND BEDDING PER LADPW 3080-2.
12	CONSTRUCTION SIDE OPENING OUTLET STRUCTURE PER DETAIL 3 ON SHEET SP-C-9.
13	REPLACE EXISTING WOODEN STOP LOGS WITH STAINLESS STEEL STOP LOGS.
14	CONSTRUCT OUTLET CONTROL STRUCTURE PER DETAIL 7 ON SHEET SP-C-9.
15	CONSTRUCT ACTUATED VALVE VAULT AND INSTALL ACTUATED VALVE PER DETAIL 6 ON SHEET SP-C-9.
16	CONSTRUCT EMERGENCY OVERFLOW OUTLET PER DETAIL 9 ON SHEET SP-C-10.
17	CONSTRUCT WATER LEVEL CONTROL INLET PER DETAIL 5 ON SHEET SP-C-9.
18	INSTALL AREA VELOCITY FLOW METER.



**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY AMT		REVISIONS			CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				
DESIGNED BY AMT	CHECKED BY CAS	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	SHEET SP-C-8
SHEET TITLE UTILITY PLAN					ACCOUNT NUMBER XXXXXX				
SCALE AS SHOWN					DWG. NO. 58 OF 95				

C:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_PASCUAL\_FINAL PLOTS\CS\_SAN\_PASCUAL-DETAILS.DWG 9/18/2014 8:27 PM



**CDS3020-6-C DESIGN NOTES**

THE STANDARD CDS3020-6-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION	
GRATED INLET ONLY (NO INLET PIPE)	
GRATED INLET WITH INLET PIPE OR PIPES	
CURB INLET ONLY (NO INLET PIPE)	
CURB INLET WITH INLET PIPE OR PIPES	
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)	
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS	

**FRAME AND COVER**  
(DIAMETER VARIES)  
N.T.S.

**SITE SPECIFIC DATA REQUIREMENTS**

STRUCTURE ID	WATER QUALITY FLOW RATE (CFS OR L/s)	PEAK FLOW RATE (CFS OR L/s)	RETURN PERIOD OF PEAK FLOW (YRS)	SCREEN APERTURE (2400 OR 4700)

PIPE DATA	I.E.	MATL.	DIAM.	SLOPE %	HGL
INLET PIPE 1					
INLET PIPE 2					
OUTLET PIPE					

RIM ELEVATION:  

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT

NOTES/SPECIAL REQUIREMENTS:  

\* PER ENGINEER OF RECORD

**GENERAL NOTES**

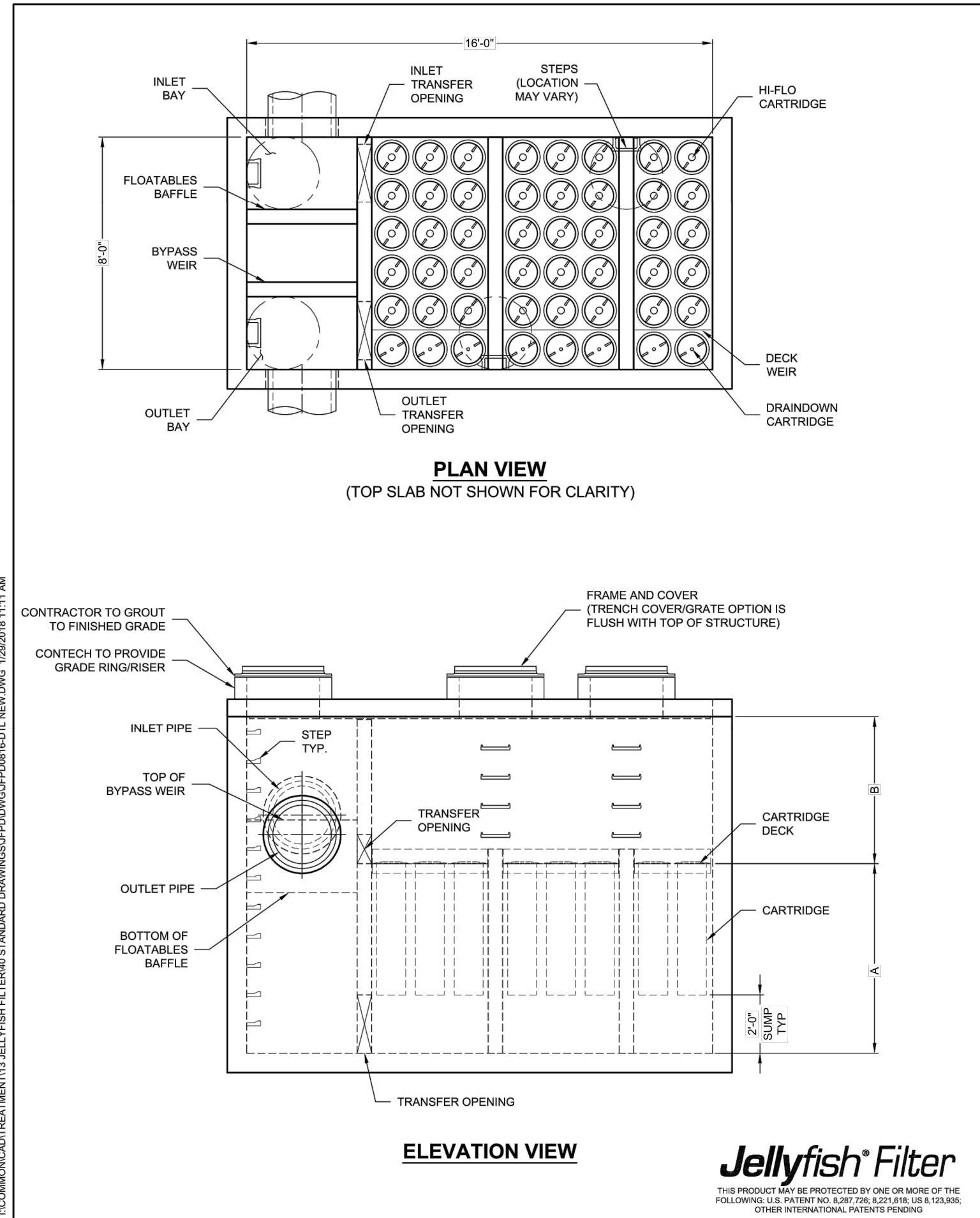
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. [www.contechES.com](http://www.contechES.com)
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO H20 AND CASTINGS SHALL MEET H20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
- PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

**INSTALLATION NOTES**

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MAN-HOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45399  
800-338-1122 513-645-7000 513-645-7993 FAX

**CDS3020-6-C**  
INLINE CDS  
STANDARD DETAIL



**JELLYFISH DESIGN NOTES**

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.

CARTRIDGE SELECTION	54"	40"	27"	19"
CARTRIDGE LENGTH	54"	40"	27"	19"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE H-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	7.84	5.98	3.92	2.16
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00

**FRAME AND COVER**  
(DIAMETER VARIES)  
N.T.S.

**24" TRENCH COVER**  
(LENGTH VARIES)  
N.T.S.

**SITE SPECIFIC DATA REQUIREMENTS**

STRUCTURE ID	WATER QUALITY FLOW RATE (cfs)	PEAK FLOW RATE (cfs)	RETURN PERIOD OF PEAK FLOW (yrs)	# OF CARTRIDGES REQUIRED (HF / DD)	CARTRIDGE LENGTH

PIPE DATA	I.E.	MATL.	DIAM.	SLOPE %	HGL
INLET #1					
INLET #2					
OUTLET					

RIM ELEVATION:  

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT

NOTES/SPECIAL REQUIREMENTS:  

\* PER ENGINEER OF RECORD

**GENERAL NOTES:**

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. [www.contechES.com](http://www.contechES.com)
- JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO H20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ASSUMING EARTH COVER OF 0' - 10' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
- STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-897, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
- OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
- THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
- NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

**INSTALLATION NOTES**

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
- CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERS TOP OR FLEXIBLE BOOT).
- CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENT NO. 6,287,726; 6,221,618; US 6,123,935; OTHER INTERNATIONAL PATENTS PENDING.

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45399  
800-338-1122 513-645-7000 513-645-7993 FAX

**JELLYFISH JFPD0816**  
STANDARD DETAIL  
PEAK DIVERSION CONFIGURATION

**1 HYDRODYNAMIC SEPARATOR**  
SCALE: NTS

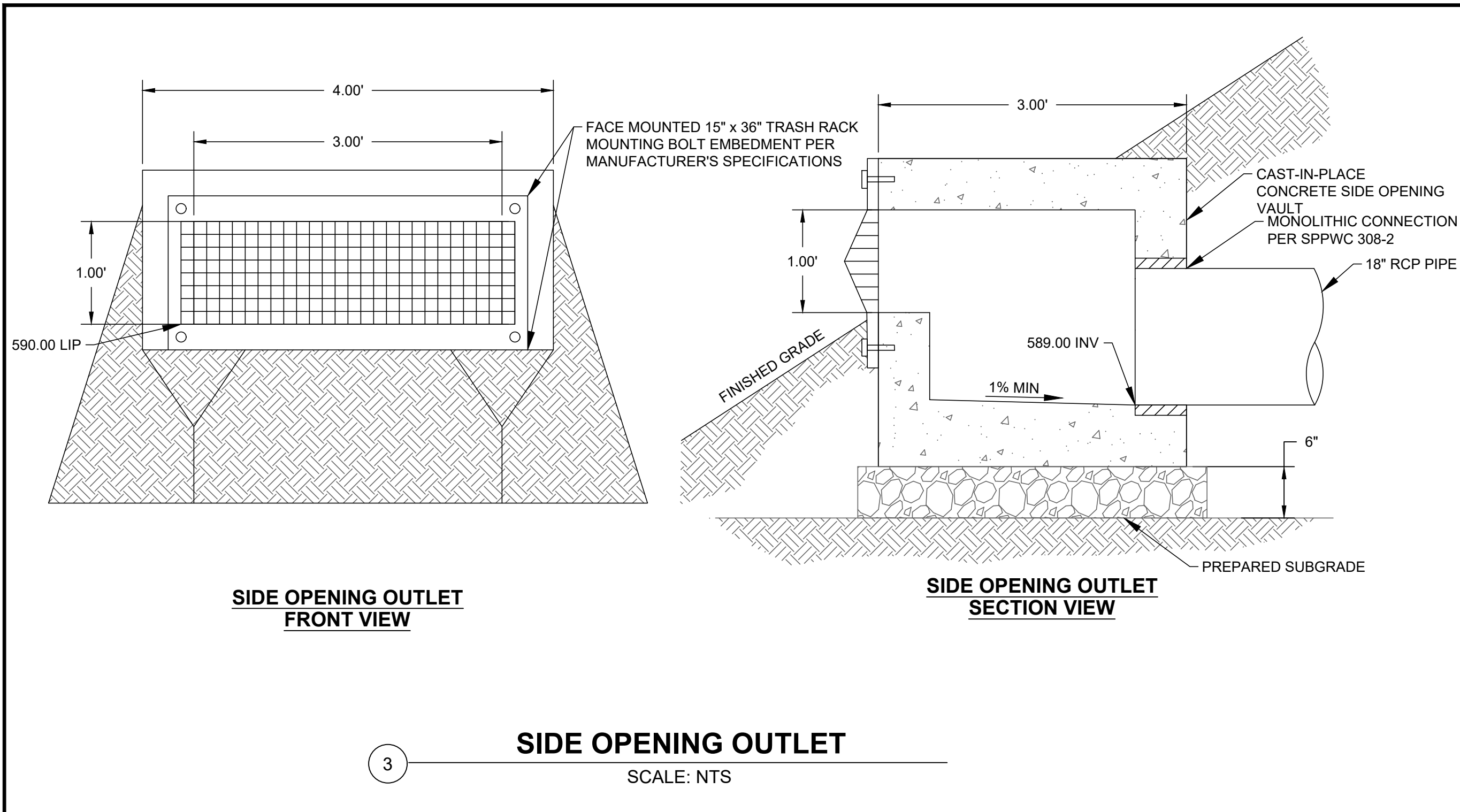
**2 FILTRATION UNIT**  
SCALE: NTS

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

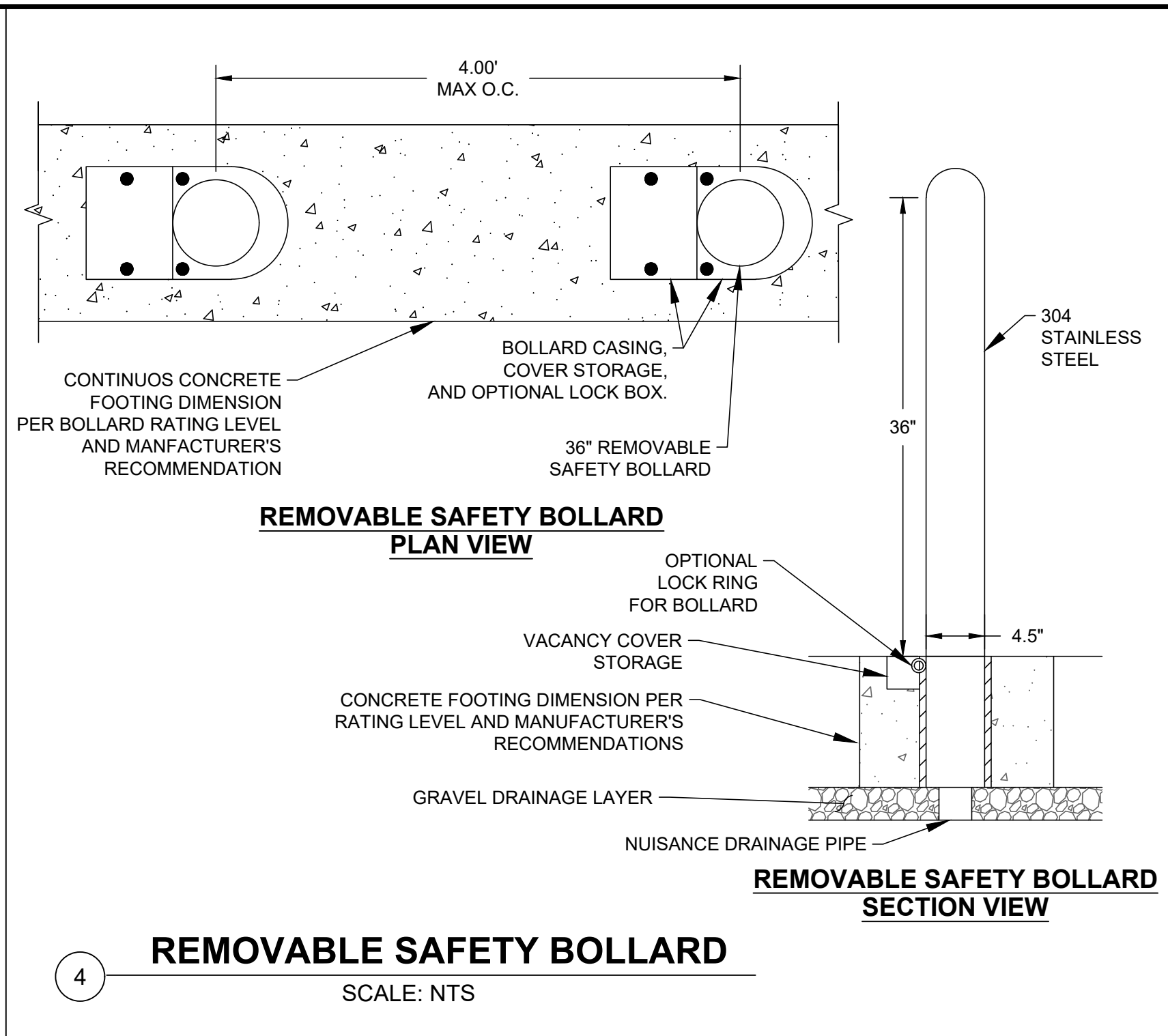
DRAWN BY	REVISIONS					CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				
	MARK	DATE	DESCRIPTION	BY	CHKD/APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SP-C-9
AMT						SHEET TITLE	DETAILS		13	OF 95
DESIGNED BY										
AMT						SCALE	AS SHOWN		DWG. NO.	
CHECKED BY										
CAS			AS BUILT			ACCOUNT NUMBER	XXXXXX			

Date: April 22, 2020 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_PASCUAL\_FINAL PLOTS\CS\_SAN\_PASCUAL-DETAILS.DWG

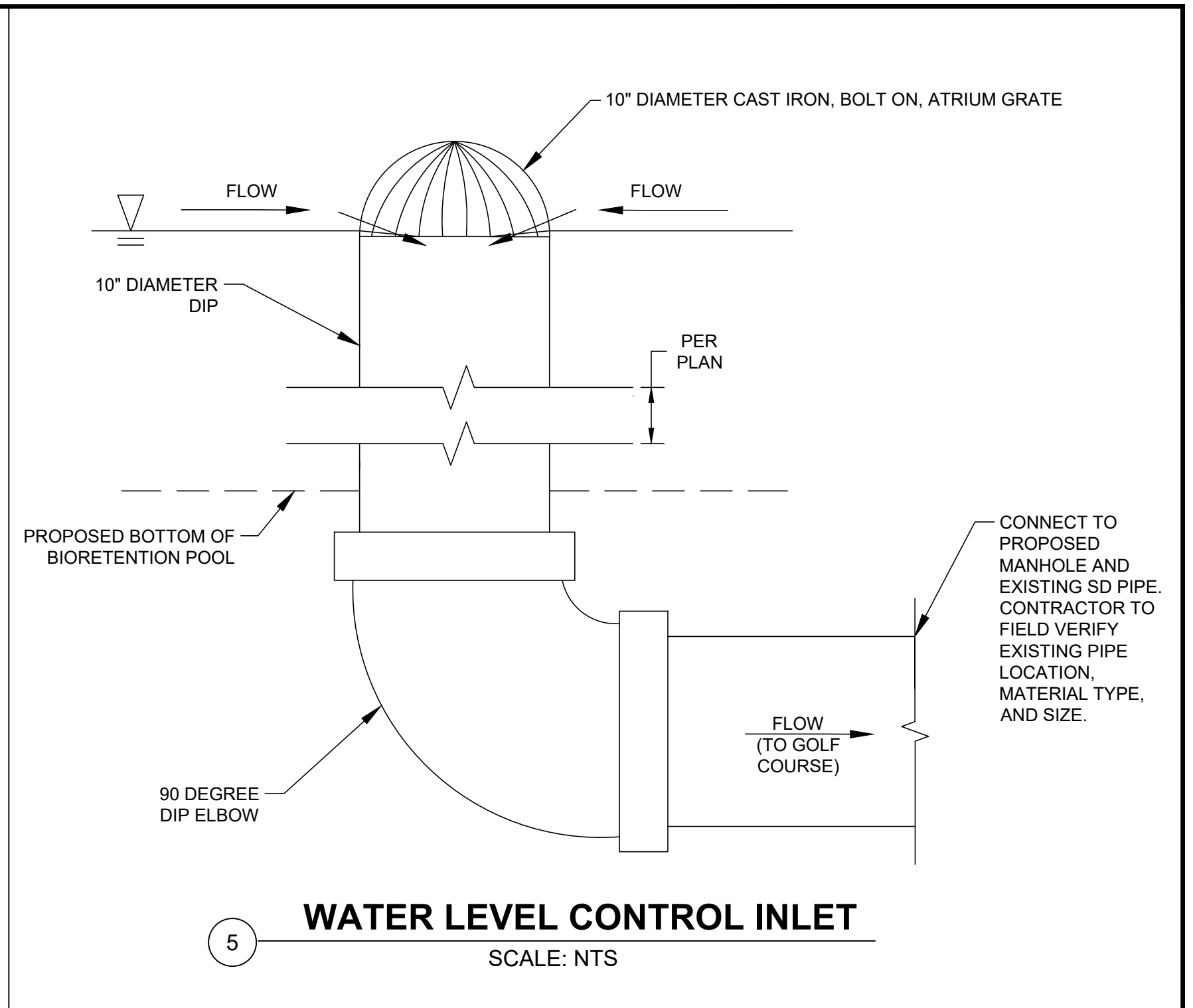




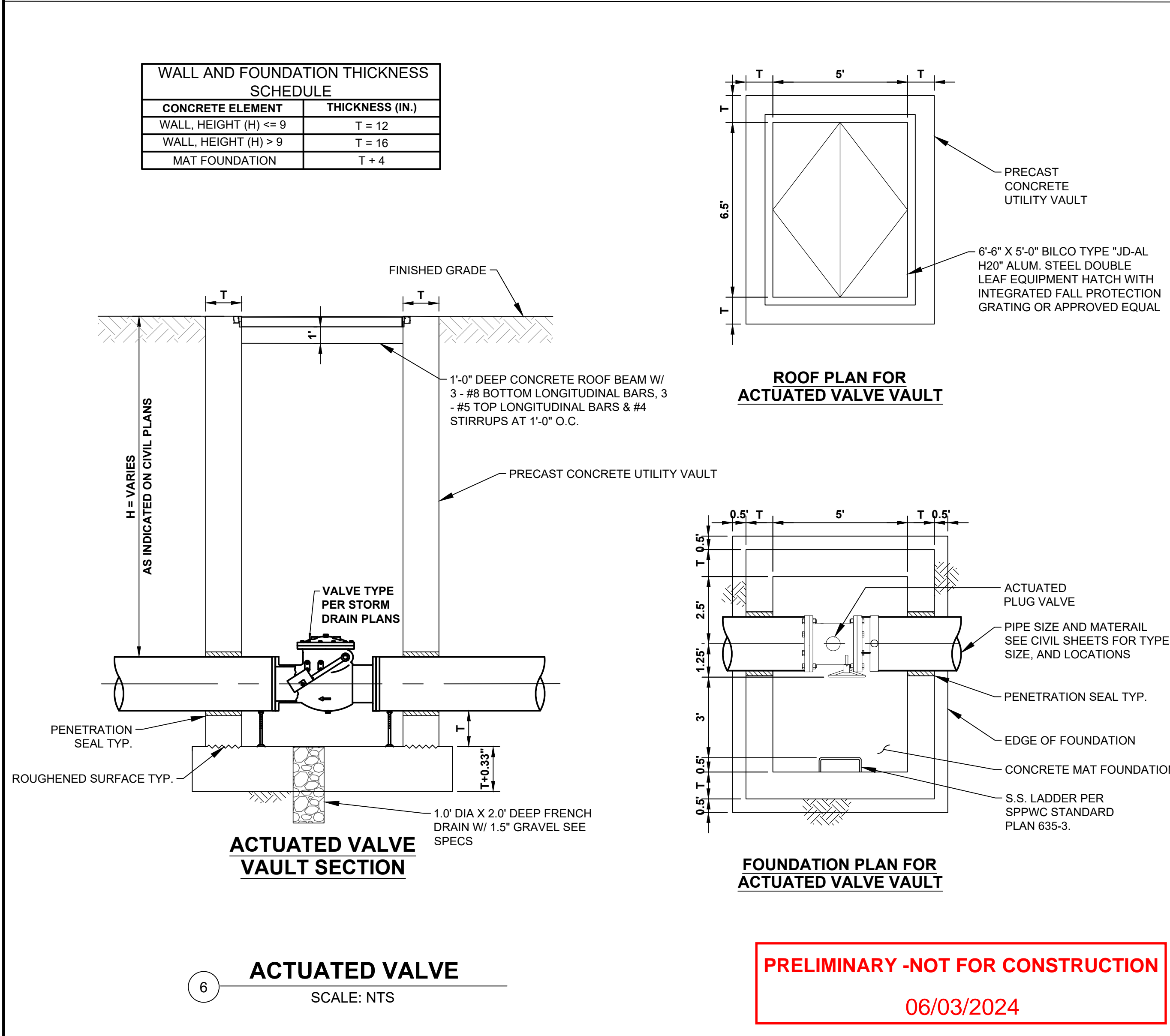
3 **SIDE OPENING OUTLET**  
SCALE: NTS



4 **REMOVABLE SAFETY BOLLARD**  
SCALE: NTS

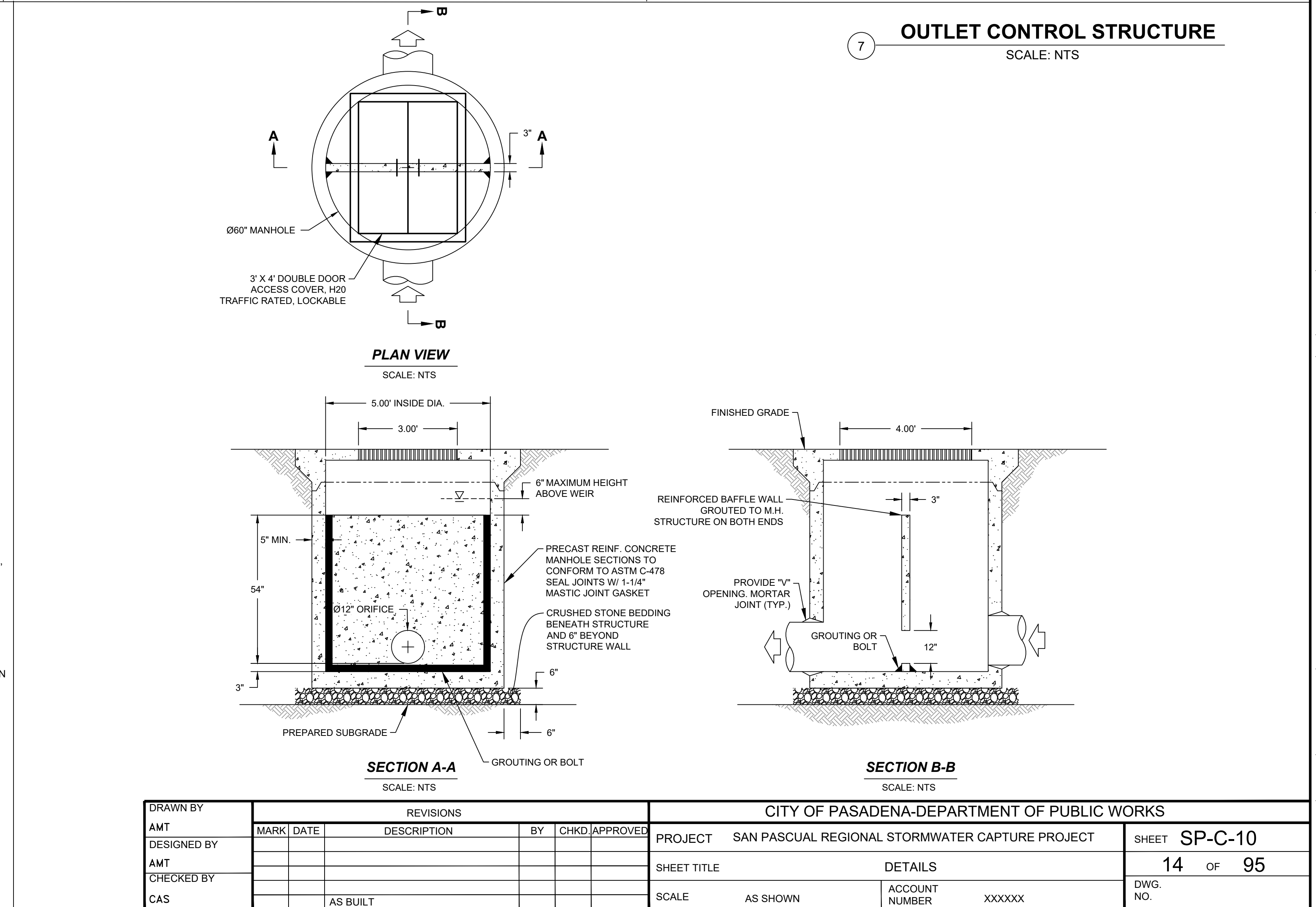


5 **WATER LEVEL CONTROL INLET**  
SCALE: NTS



6 **ACTUATED VALVE**  
SCALE: NTS

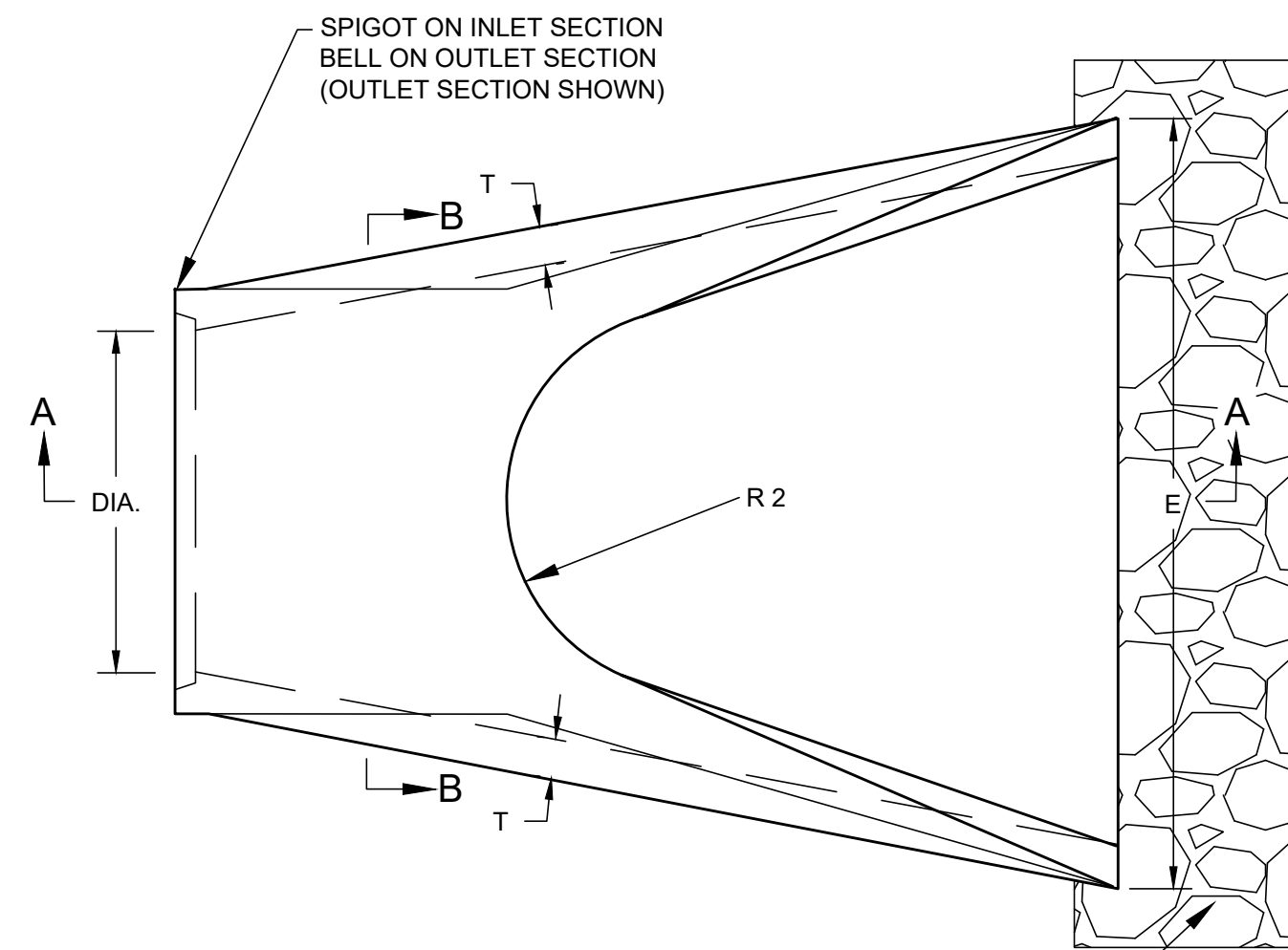
**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024



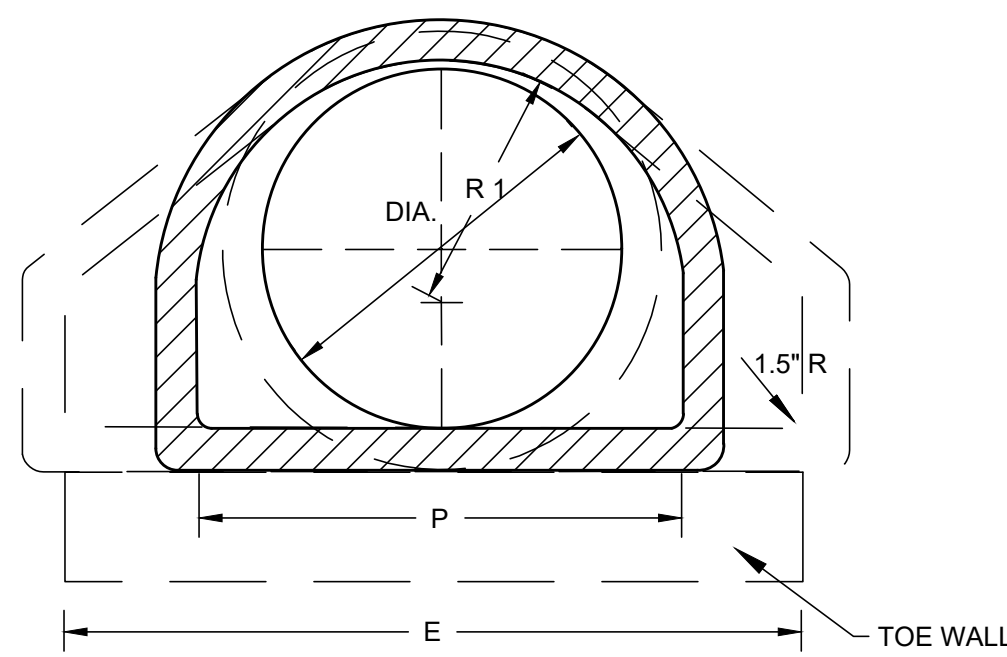
7 **OUTLET CONTROL STRUCTURE**  
SCALE: NTS

DRAWN BY AMT					REVISIONS					CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				
DESIGNED BY AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT				SHEET	SP-C-10	
CHECKED BY CAS			AS BUILT				SHEET TITLE	DETAILS				14	OF 95	
							SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.			

Date: April 22, 2020 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_PASCUAL\FINAL PLOTS\CS\_SAN\_PASCUAL-DETAILS.DWG

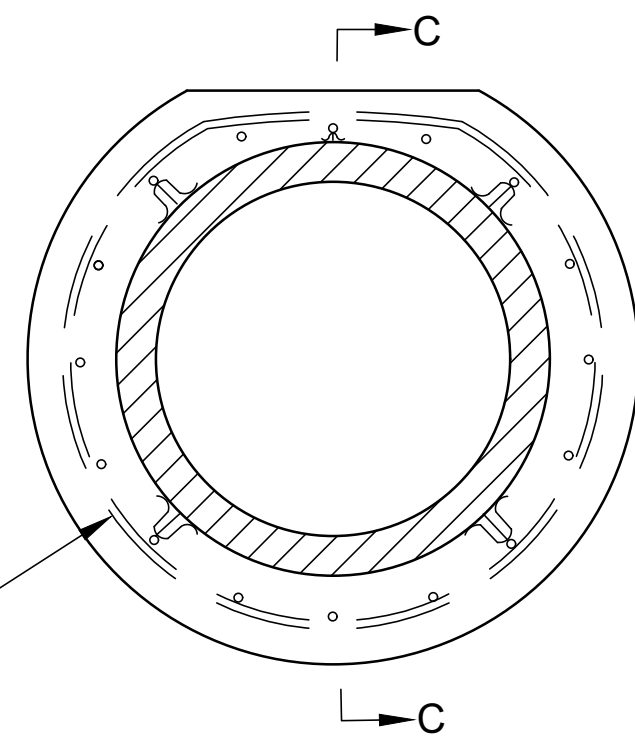


**PLAN VIEW**  
SCALE: NTS

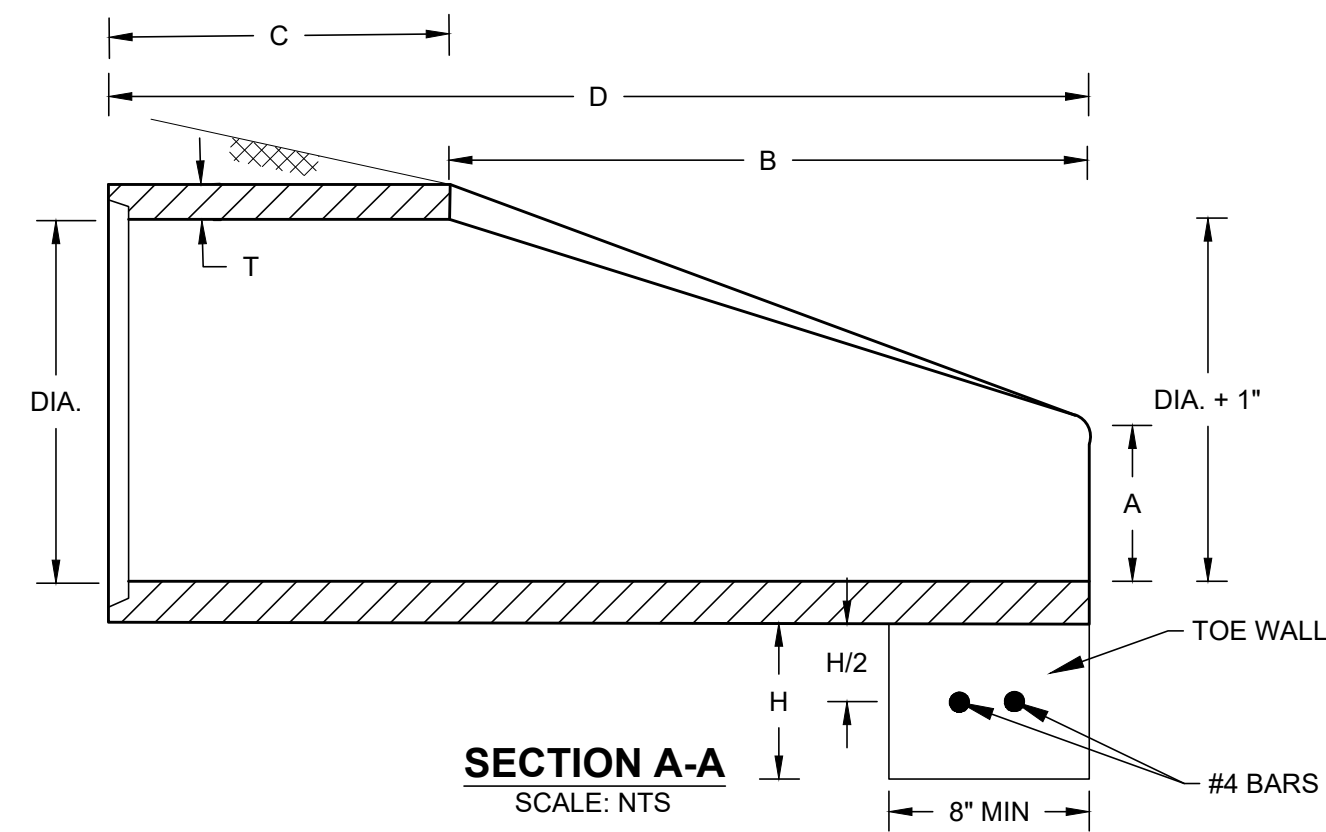


**SECTION B-B**  
SCALE: NTS

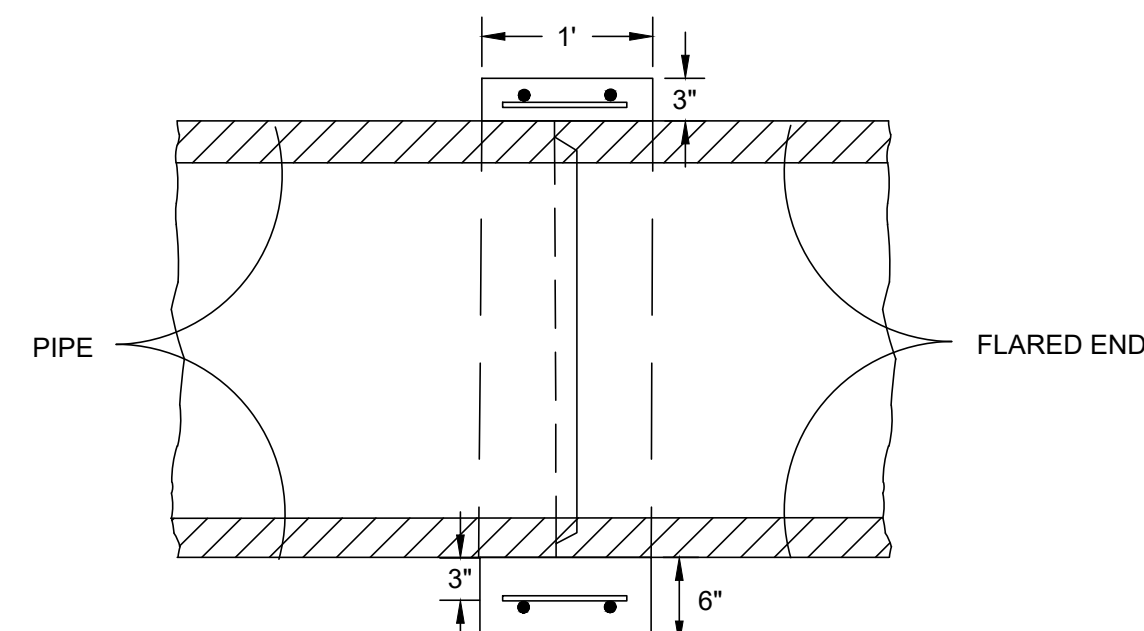
ANY WIRE MESH ARRANGEMENT WHICH PROVIDES  
0.126 SQUARE INCHES OF STEEL AREA PER LINEAR  
FOOT BOTH WAYS MAY BE USED; PROVIDED THE  
WIRES ARE SPACED A MINIMUM OF 2" AND/OR  
A MAXIMUM OF 6" ON CENTERS.



**END VIEW**  
SCALE: NTS



**SECTION A-A**  
SCALE: NTS



**SECTION C-C**  
SCALE: NTS  
**REINFORCED CONCRETE JACKET DETAIL**

DIA.	T	REINF. SQ IN/LF	BELL OR SPIGOT	A	B	C	D	E	P	R 1	R 2	FLAT	WEIGHT (LBS)	H	TOE WALL CLASS ICONIC (MISC) CY
18"	2.5"	.07	2.5"	9"	2'-3"	3'-10"	6'-1"	3'	29"	15.5"	12"	4"	990	15"	.11
24"	3"	.07	2.5"	9.5"	3'-7"	2'-6"	6'-1.5"	4'	33.2"	16.8"	14"	4.5"	1520	18"	0.17

**GENERAL NOTES:**

- FLARED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C76. CIRCUMFERENTIAL REINFORCEMENT MAY CONSIST OF EITHER ONE CAGE OR TWO CAGES OF STEEL. COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 4000 PSI. SHOP DRAWINGS FOR FLARED END SECTIONS HAVING DIMENSIONS OTHER THAN ABOVE MUST BE SUBMITTED FOR APPROVAL TO THE STATE ENGINEER.
- CONNECTIONS BETWEEN THE FLARED END SECTION AND THE PIPE CULVERT MAY BE ANY OF THE FOLLOWING TYPES UNLESS OTHERWISE SHOWN ON THE PLANS.
  - JOINTS MEETING THE REQUIREMENTS OF SECTION 941-1.5 OF THE STANDARD SPECIFICATIONS (O-RING GASKET).  
FLARED END SECTION JOINT DIMENSIONS AND TOLERANCES SHALL BE IDENTICAL OR COMPATIBLE TO THOSE USED IN THE PIPE CULVERT JOINT. WHEN PIPE CULVERT AND FLARED END SECTION MANUFACTURERS ARE DIFFERENT, THE COMPATIBILITY OF JOINT DESIGNS SHALL BE CERTIFIED TO BY THE MANUFACTURER OF THE FLARED END SECTIONS.
  - JOINTS SEALED WITH PREFORMED PLASTIC GASKETS.  
THE GASKETS SHALL MEET THE REQUIREMENTS OF SECTION 942-2 OF THE STANDARD SPECIFICATIONS AND THE MINIMUM SIZES FOR GASKETS SHALL BE AS THAT SPECIFIED FOR EQUIVALENT SIZES OF ELLIPTICAL PIPE.
  - REINFORCED CONCRETE JACKETS, AS DETAILED ON THIS DRAWING.
- TOE WALLS SHALL BE CONSTRUCTED WHEN SHOWN ON THE PLANS OR AT LOCATIONS DESIGNATED BY THE ENGINEER. TOE WALLS ARE TO BE CAST-IN-PLACE WITH CLASS 1 CONCRETE AND PAID FOR UNDER THE CONTRACT UNIT PRICE FOR CLASS 1 CONCRETE (MISCELLANEOUS), CY. REINFORCING STEEL TO BE INCLUDED IN THE COST OF TOE WALL.
- ON SKEWED PIPE CULVERTS THE FLARED END SECTIONS SHALL BE PLACED IN LINE WITH THE PIPE CULVERT. SIDE SLOPES SHALL BE WARPED AS REQUIRED TO FIT THE FLARED END SECTIONS.

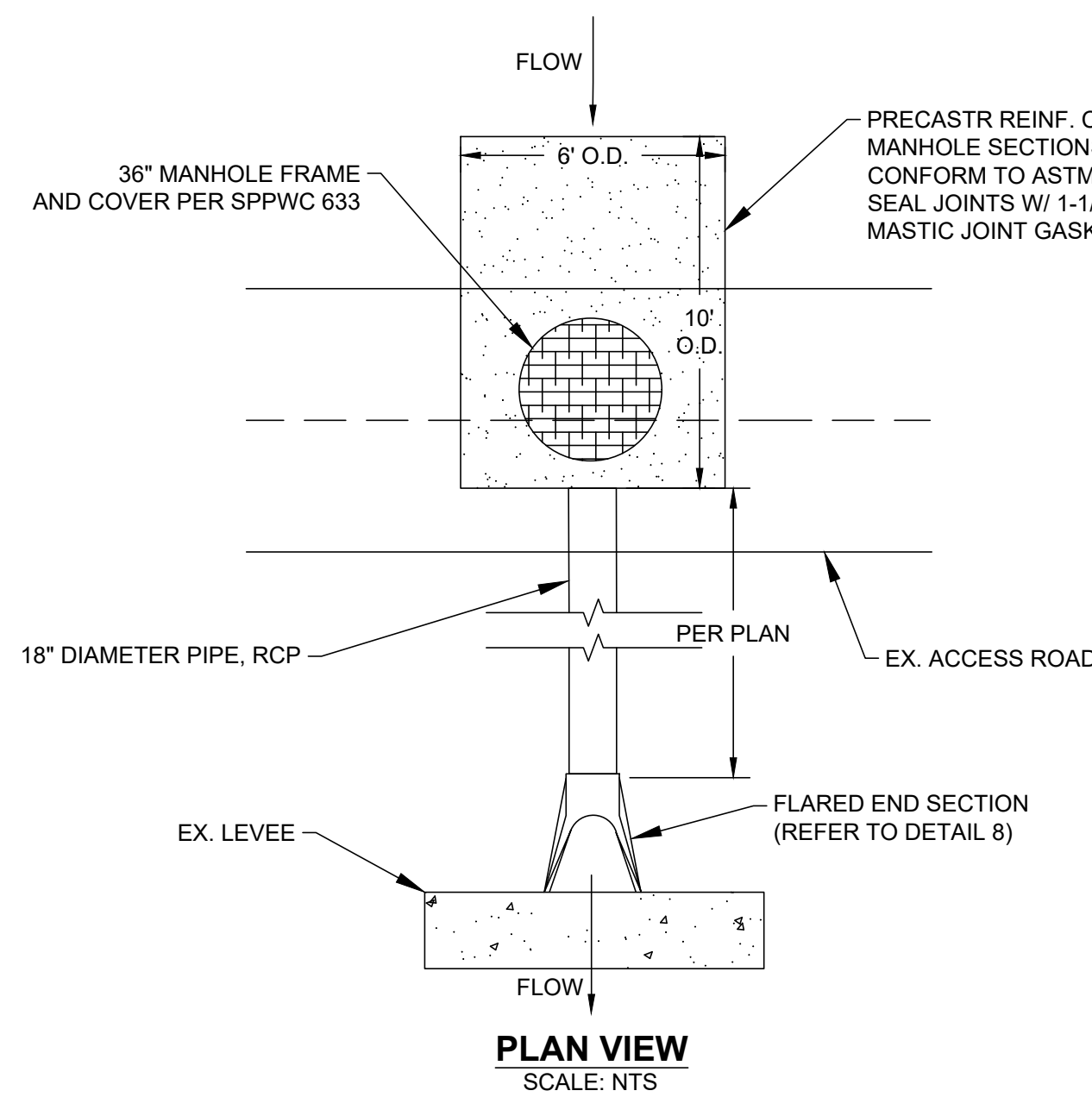
**DESIGN NOTES:**

- ALL FLARED END SECTIONS FOR THIS PROJECT SHALL INCLUDE A REINFORCED CONCRETE JACKET.
- TOE WALLS SHALL BE USED WHENEVER THE ANTICIPATED VELOCITY OF DISCHARGE AND SOIL TYPE ARE SUCH THAT EROSION ACTION WOULD OCCUR. TOE WALLS SHALL BE INSTALLED AT ALL FLARED END LOCATIONS FOR THIS PROJECT.

**FLARED END SECTION DETAIL**

SCALE: NTS

8

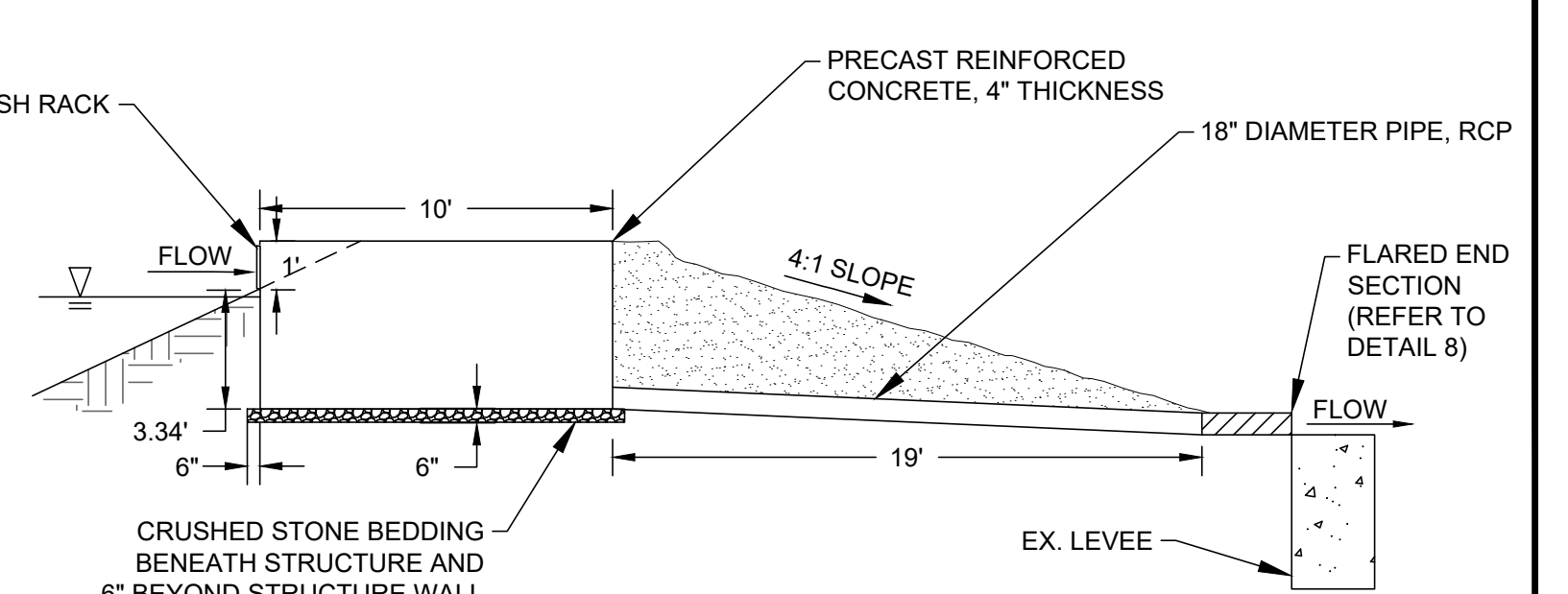


**PLAN VIEW**  
SCALE: NTS

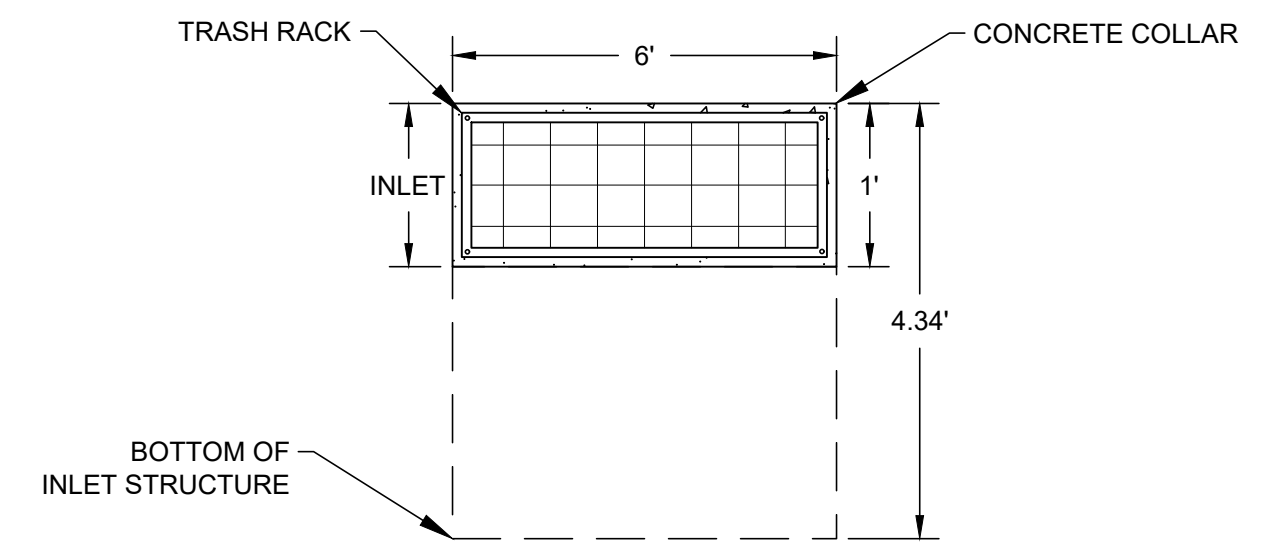
**EMERGENCY OVERFLOW OUTLET**

SCALE: NTS

9



**PROFILE VIEW**  
SCALE: NTS



**INLET DETAILS**  
SCALE: NTS

**PRELIMINARY -NOT FOR CONSTRUCTION**

06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS					
MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SP-C-11	
AMT						SHEET TITLE	DETAILS		15 OF 95		
DESIGNED BY						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.	
AMT											
CHECKED BY											
CAS		AS BUILT									

**CONCRETE NOTES**

- A. REINFORCED CONCRETE WORK SHALL CONFORM TO APPLICABLE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION, AND ACI STANDARD 350.
- B. COMPRESSION STRENGTH OF ALL REINFORCED CONCRETE SHALL NOT BE LESS THAN 4000 PSI AT 28 DAYS.
- C. CONCRETE SLUMP SHALL NOT EXCEED 4" WHEN TESTED IN ACCORDANCE WITH ASTM STANDARD NO. C143 FOR FOOTINGS, SLABS, BEAMS AND GIRDERS. 4" FOR CAST-IN-PLACE WALLS AND COLUMNS.
- D. REINFORCING BARS SHALL BE DEFORMED BARS CONFORMING TO THE REQUIREMENTS OF MINIMUM ASTM A615 GRADE 40 FOR #3 AND SMALLER BARS, AND MIN. GRADE 60 FOR BARS LARGER THAN #3, U.N.O. ALL REINFORCEMENT TO BE WELDED SHALL CONFORM TO ASTM A706. SUPPORTS AND ACCESSORIES SHALL BE FURNISHED AS SHOWN OR REQUIRED. REINFORCING CHAIR SUPPORTS PLACED AGAINST EXPOSED SURFACES SHALL BE GALVANIZED OR PROVIDED WITH PLASTIC FEET.
- E. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185. MESH FOR SLABS ON GRADE SHALL BE PROPERLY SUPPORTED. PULLING UP MESH AFTER CONCRETE PLACEMENT IS NOT ALLOWED.
- F. MINIMUM COVERAGE FOR REINFORCING SHALL BE THE CLEAR DISTANCE TO THE FACE OF BARS AS FOLLOWS: 3" WHEN CONCRETE IS POURED AGAINST EARTH; 1 1/2" FOR #5 AND SMALLER BARS FROM FORMED SURFACES EXPOSED TO GROUND OR WEATHER, 2" FOR #6 AND LARGER BARS FROM FORMED SURFACES EXPOSED TO GROUND OR WEATHER.
- G. ALL REINFORCING STEEL SHALL BE ACCURATELY POSITIONED AND ADEQUATELY TIED USING PROPER CHAIRS OR BOLSTERS PRIOR TO POURING CONCRETE.
- H. SPLICES IN REINFORCEMENT SHALL NOT BE MADE AT OR NEAR POINTS OF MAXIMUM STRESS. SPLICES SHALL BE PER TYPICAL FOUNDATION DETAILS.
- I. ALL CONCRETE EDGES, CORNERS AND INTERSECTIONS SHALL BE TOOLED OR CHAMFERED NO LESS THAN 3/4" WHETHER SHOWN OR NOT ON THE DRAWINGS.
- J. CONSTRUCTION JOINTS WILL NOT BE PERMITTED, EXCEPT AS SHOWN ON THE DRAWINGS, WITHOUT WRITTEN CONSENT OF THE ENGINEER.

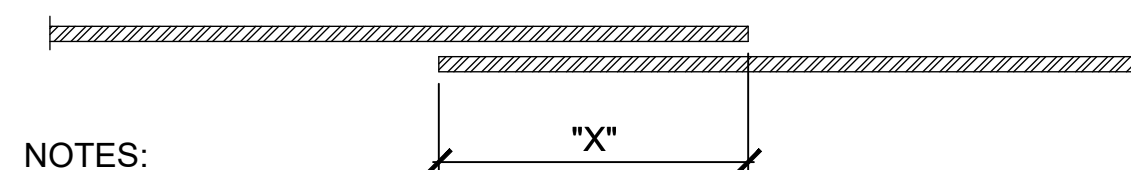
**FOUNDATION NOTES**

- A. ALL FOUNDATION CONSTRUCTION SHALL CONFORM TO REQUIREMENTS OF THE PROJECT GEOTECHNICAL REPORT PREPARED BY NINYO & MOORE DATED JUNE 17, 2022, PROJECT NO. 211880001
- B. FOOTINGS SHALL BEAR NOT LESS THAN 18" BELOW FINISH GRADE.
- C. FOOTINGS MAY BE POURED IN NEAT EXCAVATION WHERE POSSIBLE, PROVIDED AN EXTRA 1" WIDTH OF FOOTING IS PROVIDED ON EACH SIDE AND WRITTEN APPROVAL IS GIVEN BY THE ENGINEER.
- D. ALL FOOTING EXCAVATIONS SHALL BE HAND CLEANED PRIOR TO PLACING CONCRETE
- E. SOIL PROPERTIES BASED ON THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY NINYO & MOORE, PROJECT NO. 211880001, DATED JUNE 17, 2022. THE FOLLOWING DESIGN VALUES WERE USED BASED ON THE PROJECT GEOTECHNICAL ENGINEERING REPORT: ALLOWABLE BEARING PRESSURE: 4000 PSF ACTIVE PRESSURE: 57 PCF

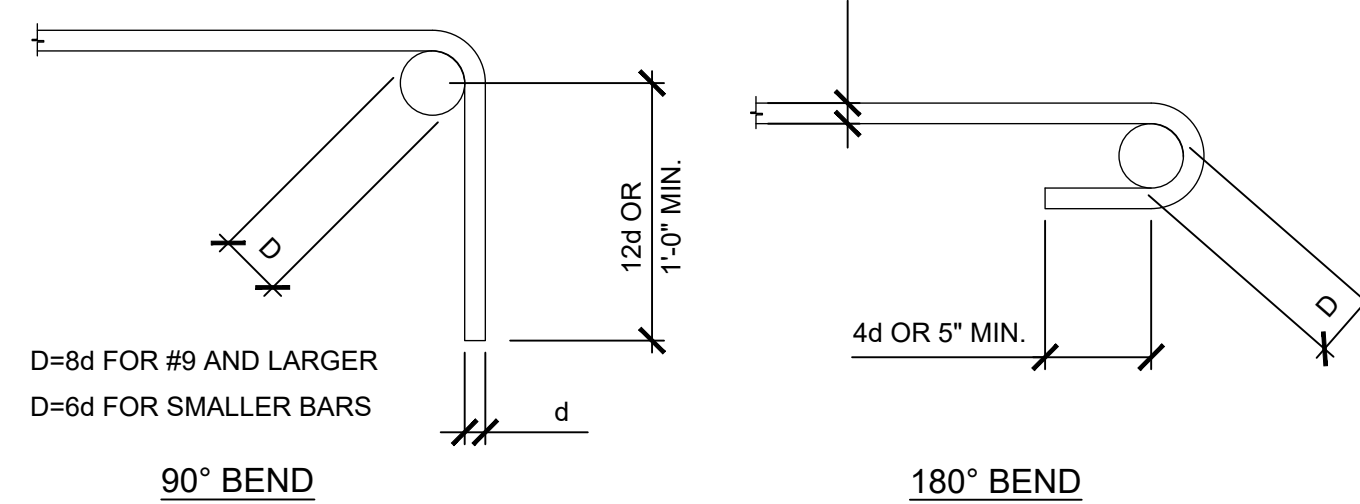
**STRUCTURAL NOTES**

- A. PLACING OF REINFORCEMENT SHALL CONFORM TO THE ACI 350
- B. STRUCTURAL DESIGN CRITERIA FOR THE DESIGN OF STRUCTURES:
  - DESIGN CODES: -AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION -ACI 350
  - DESIGN STRESSES:  $f_c = 4,000$  PSI  $F_y = 60$  KSI, GRADE 60 REINFORCING
  - DEAD LOAD: CONCRETE WEIGHT, 150 PCF SOIL WEIGHT = 121 PCF
  - LIVE LOAD: 100 PSF SURCHARGE

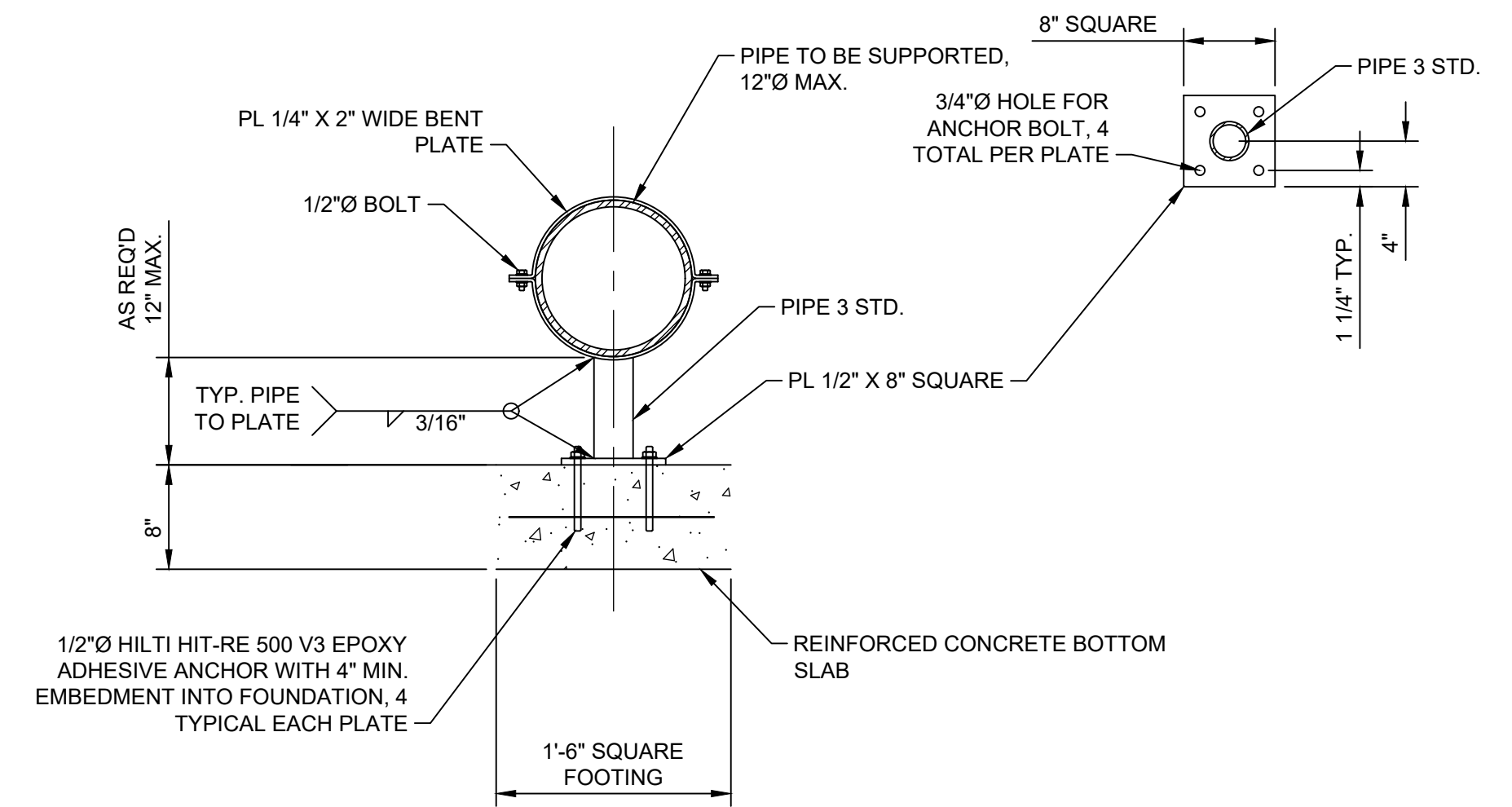
REINFORCING LAP SPLICE SCHEDULE				
BAR	$f_m=1500$	$f_c=3250$	$f_c=4000$	$f_c=5000$
	X"	X"	X"	X"
4	32"	21"	20"	18"
5	39"	26"	24"	21"
6	46"	31"	28"	25"
7	53"	36"	33"	29"
8	61"	42"	37"	34"
9	69"	47"	42"	38"



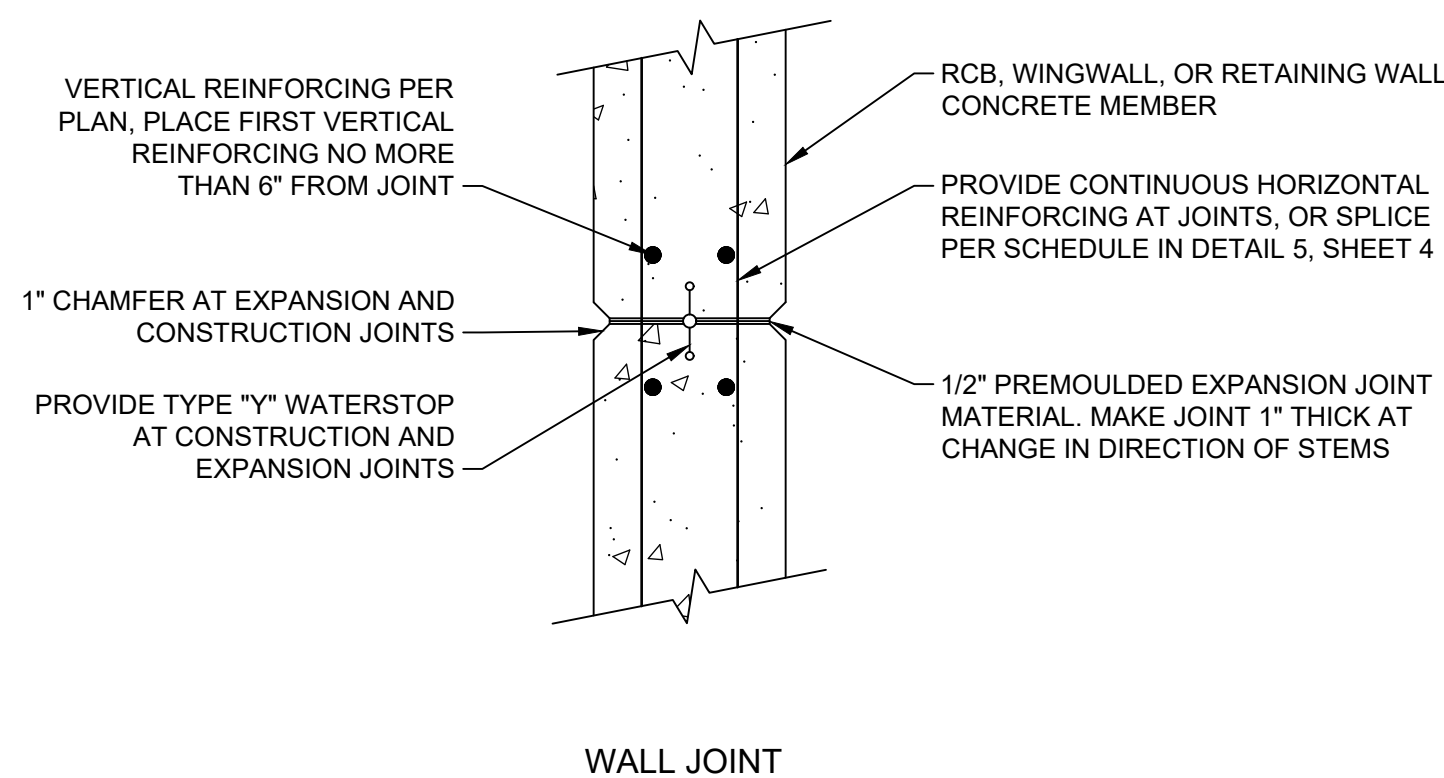
- NOTES:**
- LAPS SHOWN IN THIS TABLE ARE CLASS B, CATEGORY 3 TYPE SPLICES. LAP LENGTH IS BASED UPON SMALLER OF TWO BARS BEING SPLICED WHEN NOT THE SAME SIZE.
  - INCREASE LAP LENGTHS BY A FACTOR OF 1.3 FOR HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 305MM (12") OF CONCRETE IS CAST IN THE MEMBER BELOW THIS REINFORCEMENT.



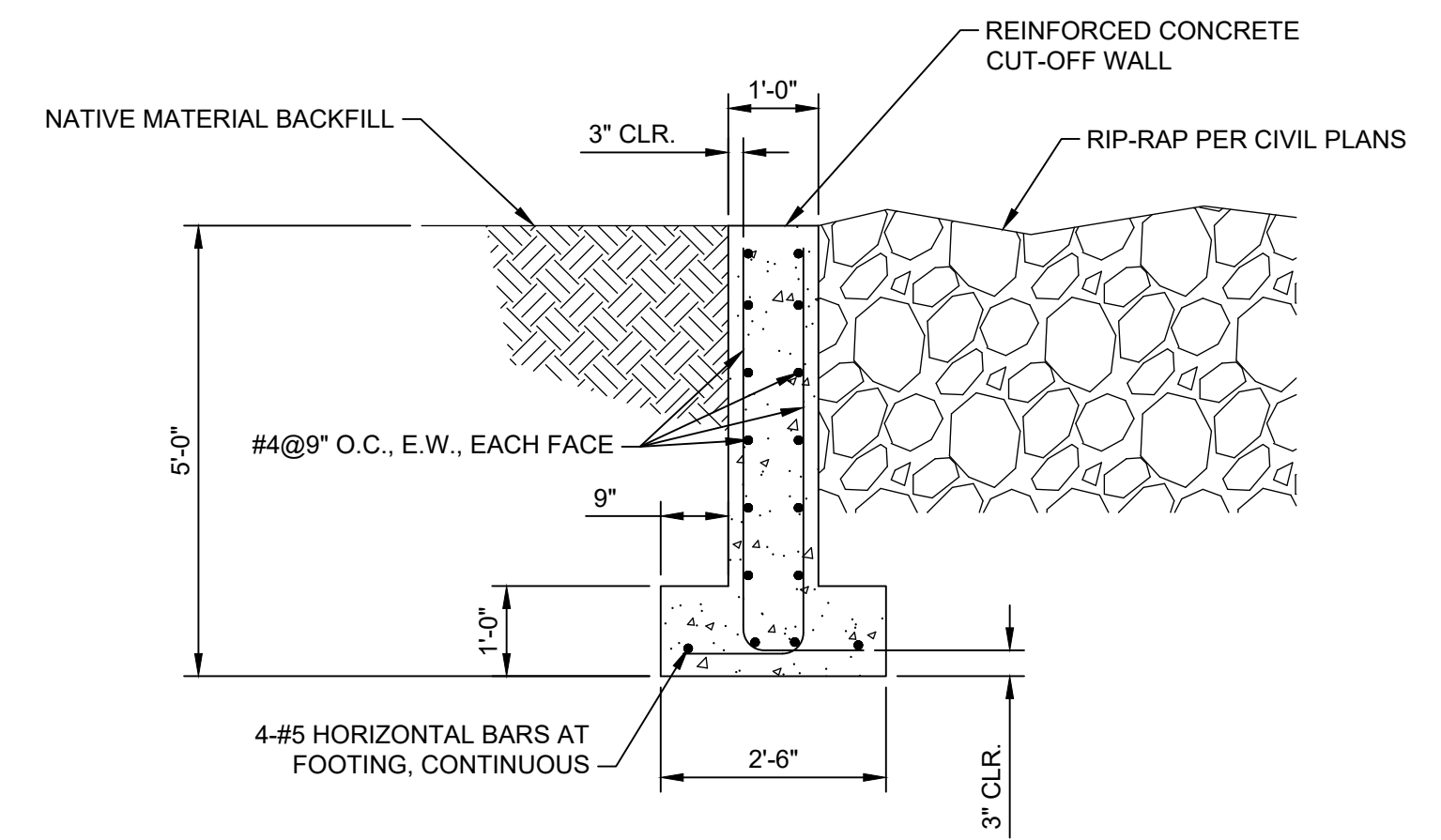
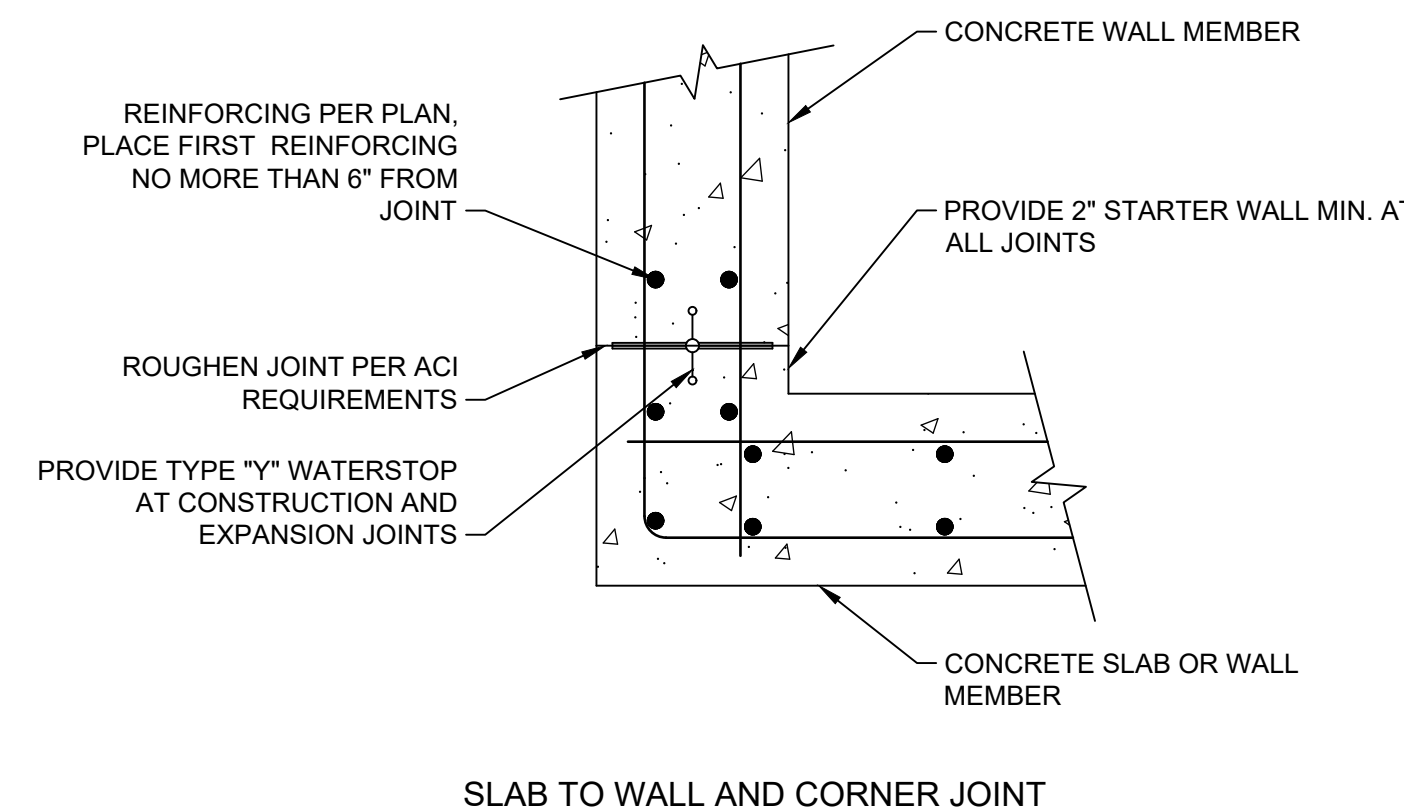
**1 REINFORCING DETAILS**  
SCALE: NONE



**2 PIPE SUPPORT DETAIL**  
SCALE: 1" = 1'-0"



**3 TYPICAL CONSTRUCTION/EXPANSION JOINT DETAIL**  
SCALE: NONE



**4 CUT-OFF WALL DETAIL**  
SCALE: NONE

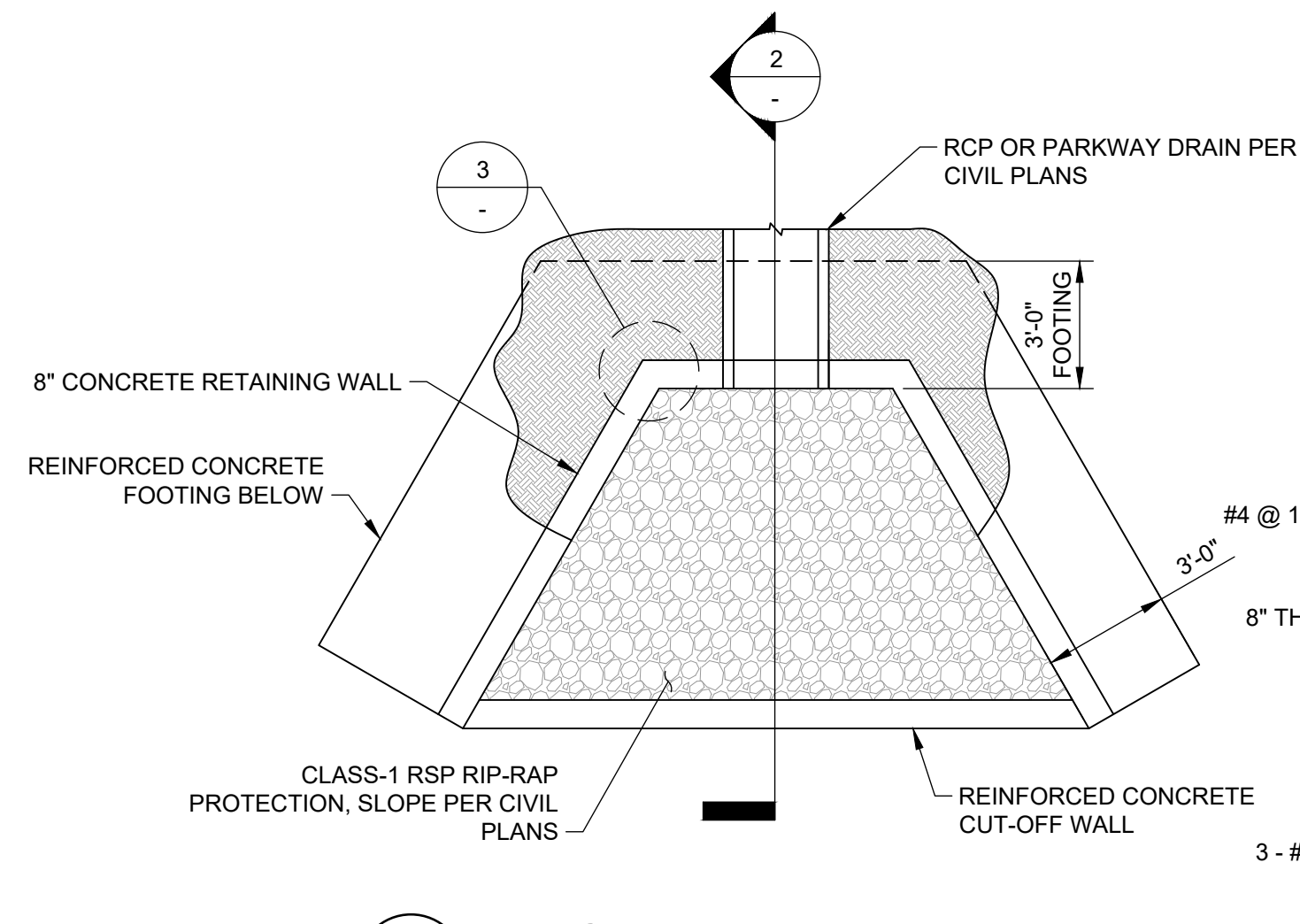
PRELIMINARY -NOT FOR CONSTRUCTION  
06/03/2024

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25231 PASEO DE ALICIA, SUITE 200  
LAGUNA HILLS, CA. 92653  
949.215.5935

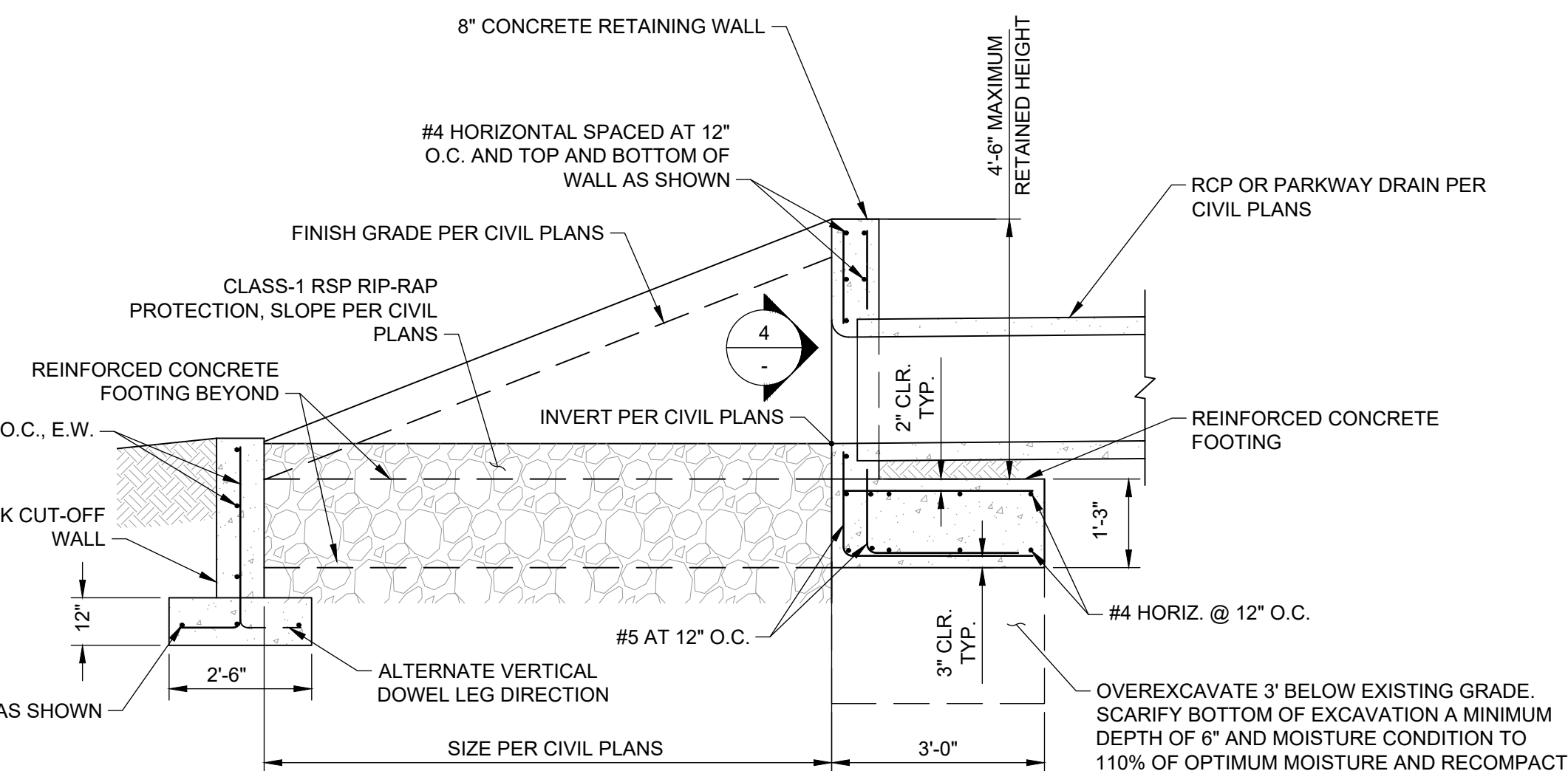


2.1.2024  
100% DESIGN - PERMIT SET

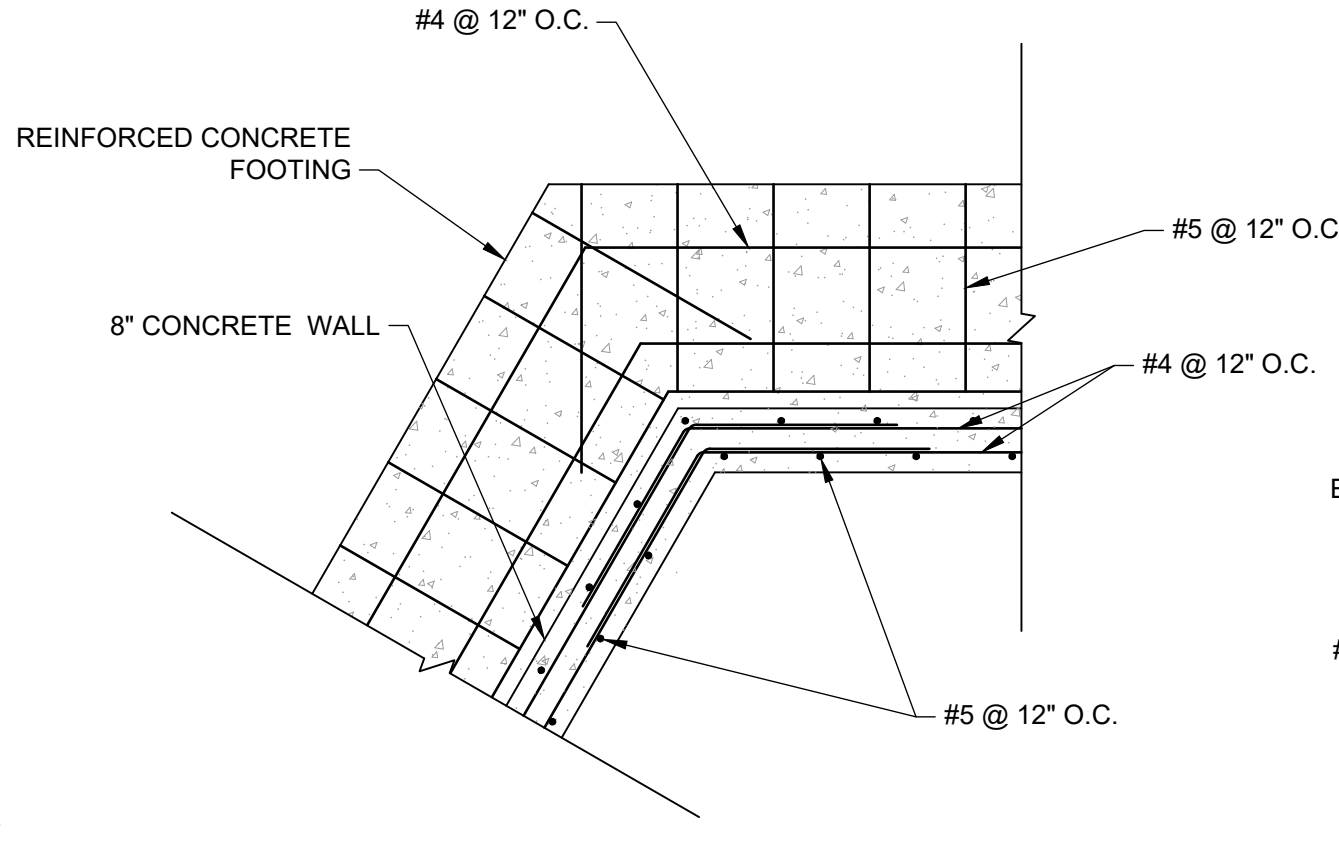
DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS					
CC		MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	SHEET	<b>SP-S-1</b>
DESIGNED BY								SHEET TITLE	STRUCTURAL NOTES AND DETAILS	92	OF 97
CHECKED BY								SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
JD				AS BUILT				DWG. NO.			



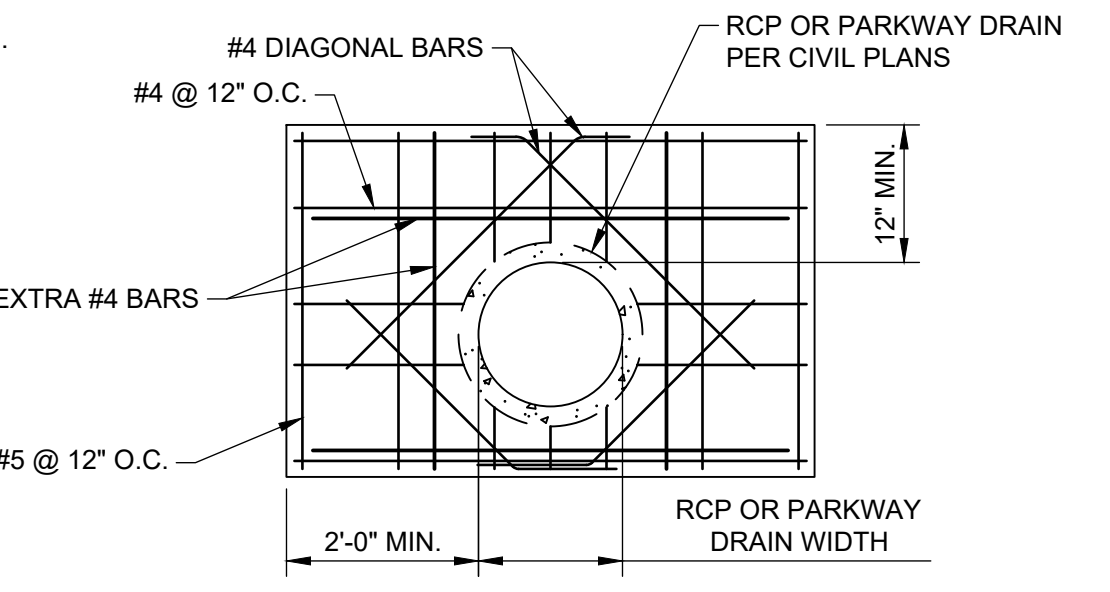
**1 TYPICAL HEADWALL PLAN VIEW**  
SCALE: 1/4" = 1'-0"



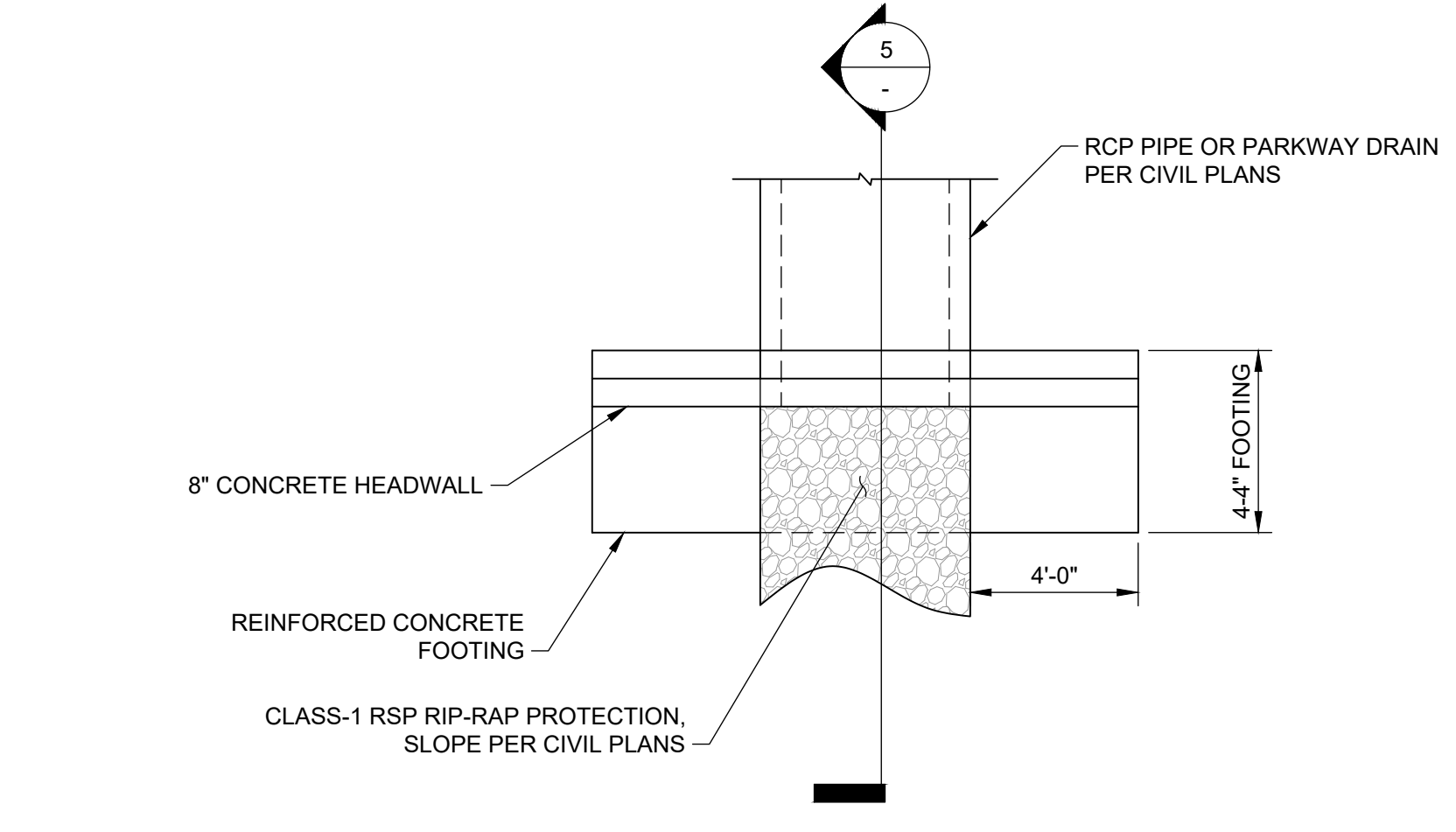
**2 TYPICAL HEADWALL SECTION**  
SCALE: 1/2" = 1'-0"



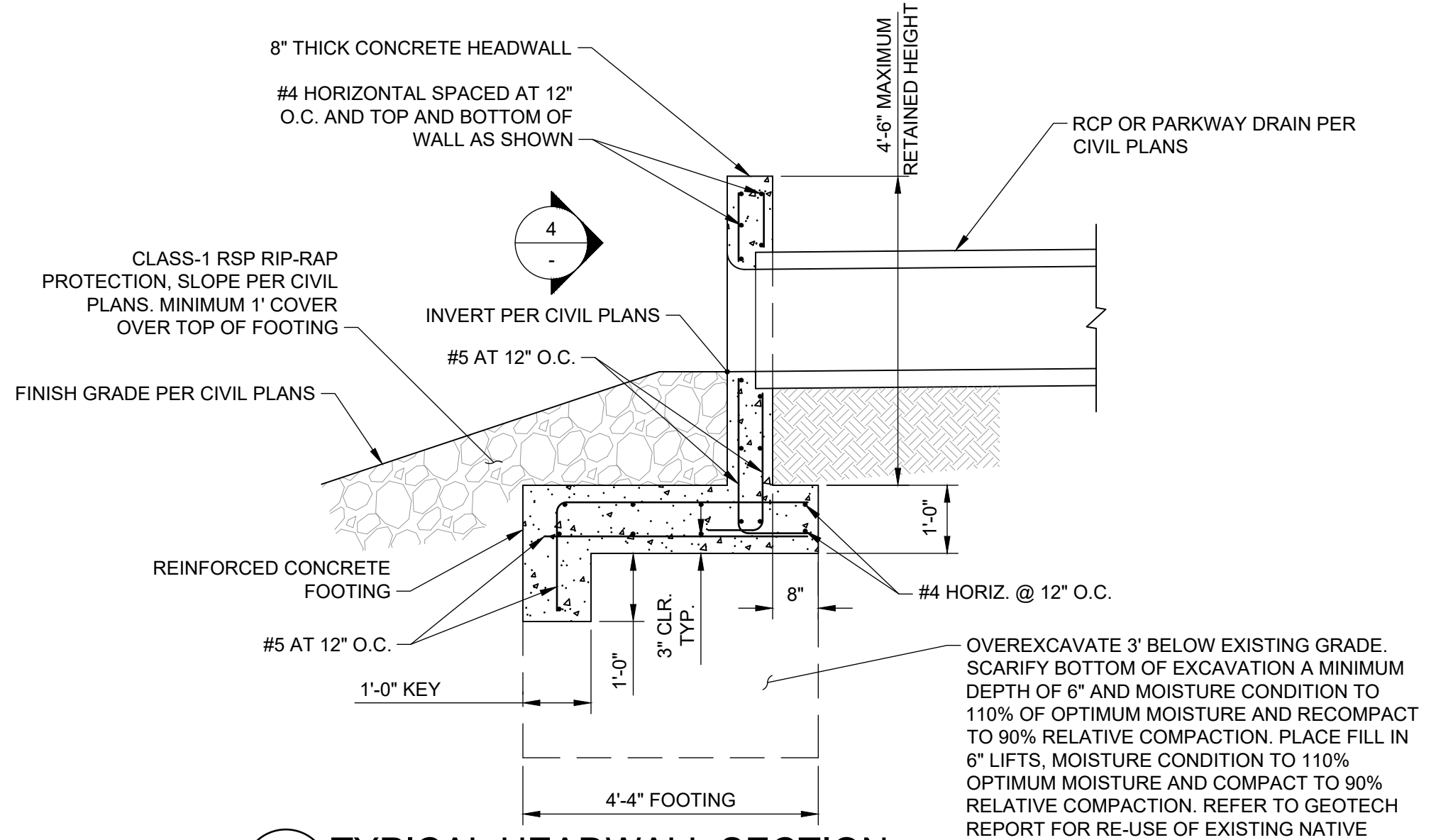
**3 HEADWALL/WINGWALL CORNER DETAIL**  
SCALE: 1/2" = 1'-0"



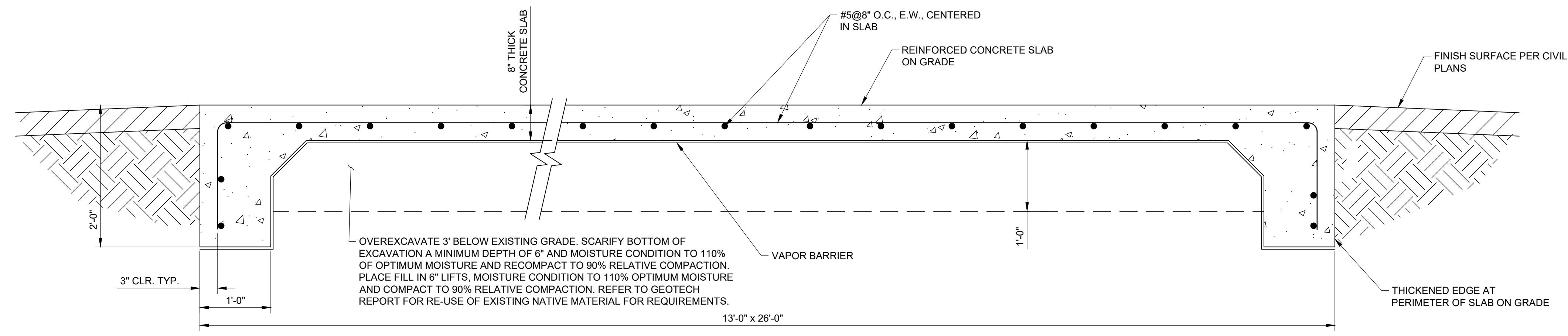
**4 HEADWALL OUTLET DETAIL**  
SCALE: 1/2" = 1'-0"



**5 TYPICAL HEADWALL PLAN VIEW**  
SCALE: 1/4" = 1'-0"



**6 TYPICAL HEADWALL SECTION**  
SCALE: 1/2" = 1'-0"



**7 STORMWATER HARVESTING UNIT FOUNDATION**  
SCALE: 1" = 1'-0"

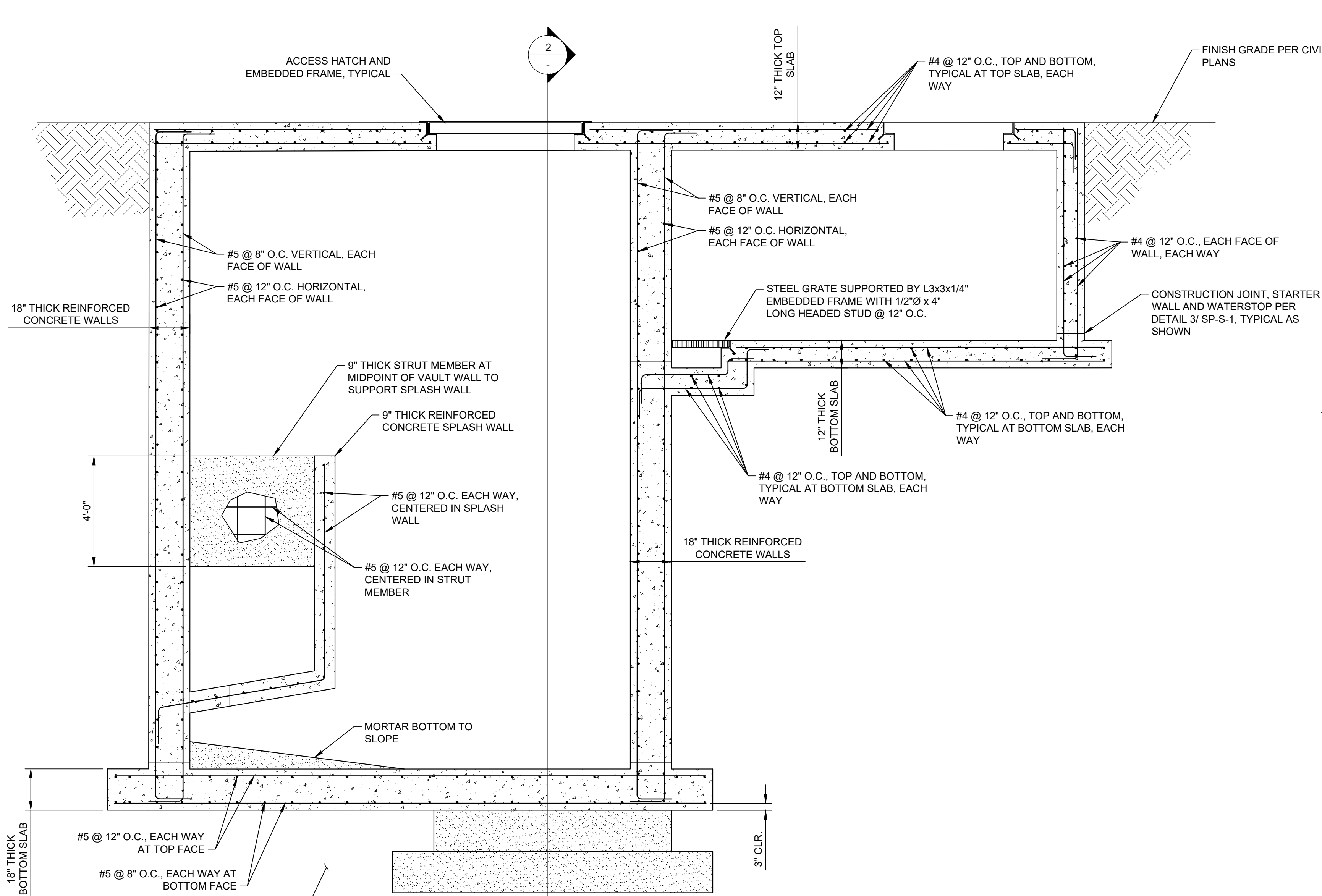
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06/03/2024

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949.215.9935



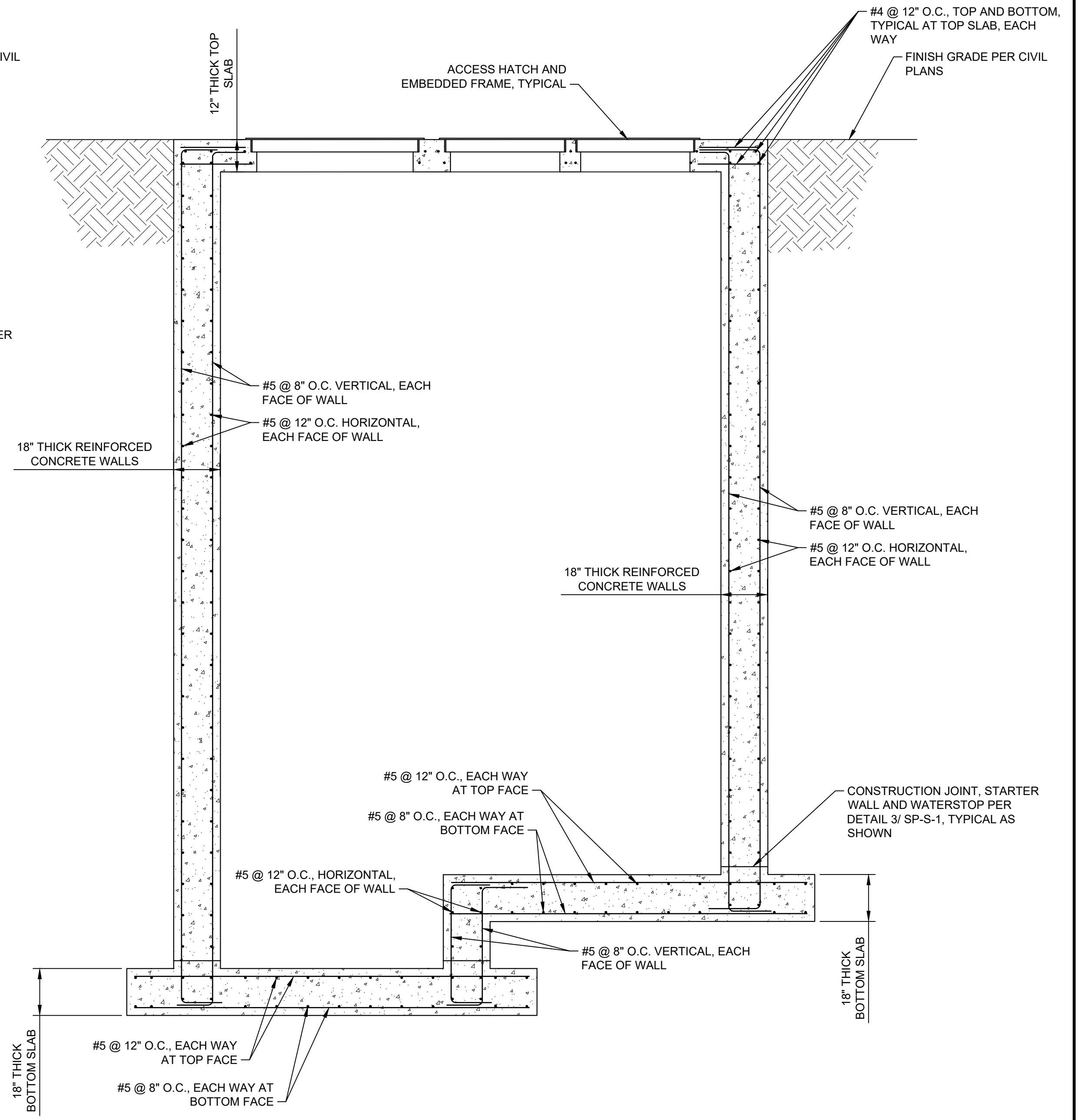
100% DESIGN - PERMIT SET

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SHEET		NO.
CC						ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	93		SP-S-2
DESIGNED BY						SHEET TITLE	HEADWALL AND WINGWALL STRUCTURAL DETAILS		OF 97
CC						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
CHECKED BY						DWG. NO.			
JD		AS BUILT							



OVEREXCAVATE 2' BELOW EXISTING GRADE. SCARIFY BOTTOM OF EXCAVATION A MINIMUM DEPTH OF 8" AND MOISTURE CONDITION TO 110% OF OPTIMUM MOISTURE AND RECOMPACT TO 90% RELATIVE COMPACTION. PLACE FILL IN 6" LIFTS, MOISTURE CONDITION TO 110% OPTIMUM MOISTURE AND COMPACT TO 90% RELATIVE COMPACTION. REFER TO GEOTECH REPORT FOR RE-USE OF EXISTING NATIVE MATERIAL FOR REQUIREMENTS.

1 PUMP STATION STRUCTURAL SECTION  
SCALE: 3/8" = 1'-0"



2 PUMP STATION STRUCTURAL SECTION  
SCALE: 3/8" = 1'-0"

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06/03/2024

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LAGUNA HILLS, CA. 92653  
949.215.9935

REGISTERED PROFESSIONAL ENGINEER  
JOSEPH E. DITLEY  
No. 55251  
EXP. 06/30/24  
STATE OF CALIFORNIA

2.1.2024

DRAWN BY					REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
MARK	DATE	DESCRIPTION	BY	CHKD/APPROVED	PROJECT	ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT			SHEET	SP-S-3		
CC					SHEET TITLE	PUMP STATION STRUCTURAL DETAILS			94	OF 97		
DESIGNED BY					SCALE	AS SHOWN		ACCOUNT NUMBER	XXXXXX			
CC									DWG. NO.			
CHECKED BY												
JD		AS BUILT										

100% DESIGN - PERMIT SET

**CONCRETE NOTES**

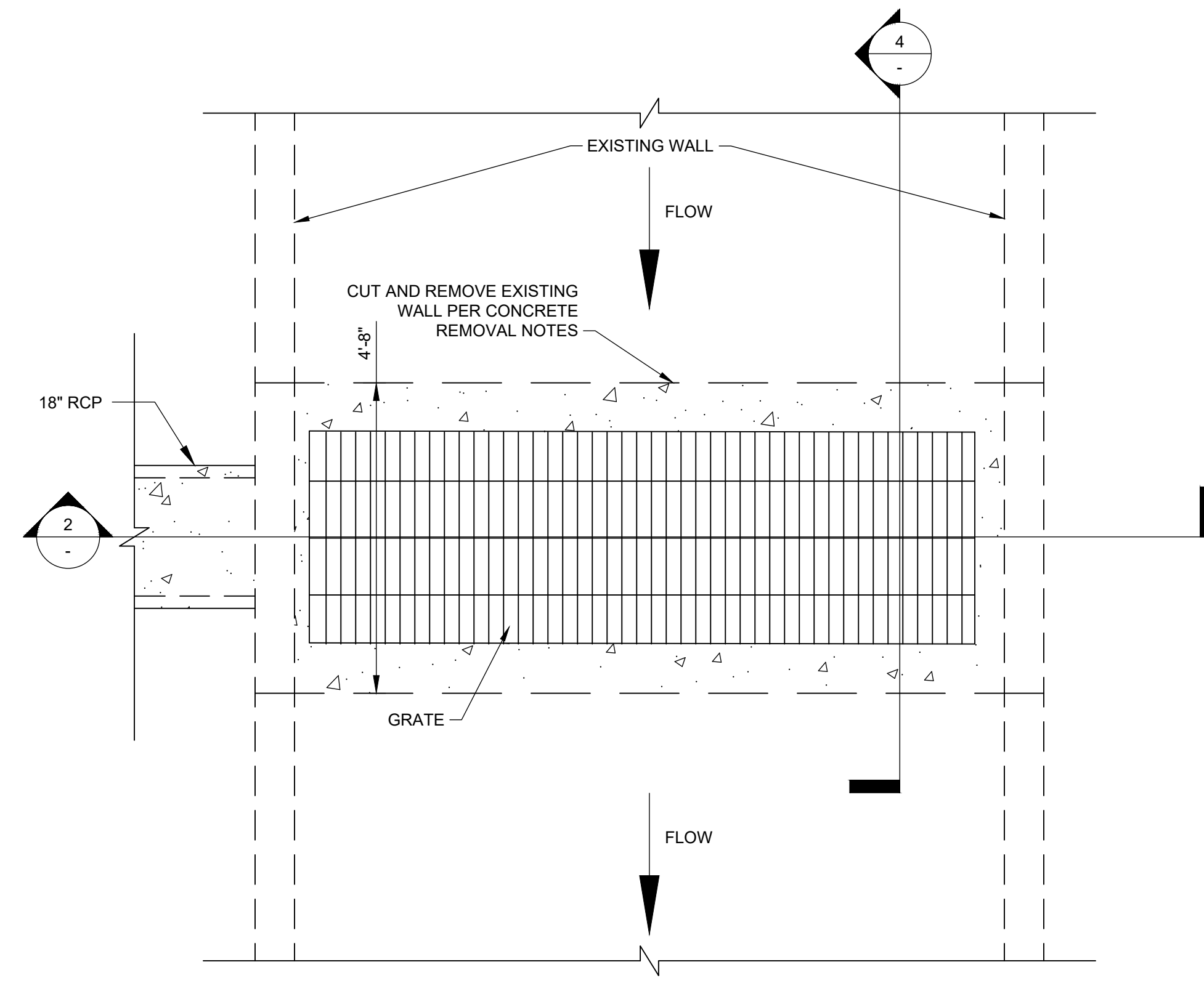
- A. REINFORCED CONCRETE WORK SHALL CONFORM TO APPLICABLE REQUIREMENTS OF THE 2022 CALIFORNIA BUILDING CODE, AND ACI STANDARD 318-19.
- B. COMPRESSION STRENGTH OF ALL REINFORCED CONCRETE SHALL NOT BE LESS THAN 4000 PSI AT 28 DAYS.
- C. CONCRETE SLUMP SHALL NOT EXCEED 4" WHEN TESTED IN ACCORDANCE WITH ASTM STANDARD NO. C143 FOR FOOTINGS, SLABS, BEAMS AND GIRDERS. 4" FOR CAST-IN-PLACE WALLS AND COLUMNS.
- D. REINFORCING BARS SHALL BE DEFORMED BARS CONFORMING TO THE REQUIREMENTS OF MINIMUM ASTM A615 GRADE 40 FOR #3 AND SMALLER BARS, AND MIN. GRADE 60 FOR BARS LARGER THAN #3. U.N.O. ALL REINFORCEMENT TO BE WELDED SHALL CONFORM TO ASTM A706. SUPPORTS AND ACCESSORIES SHALL BE FURNISHED AS SHOWN OR REQUIRED. CHAIRS PLACED AGAINST EXPOSED SURFACES SHALL BE GALVANIZED OR PROVIDED WITH PLASTIC FEET.
- E. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185. MESH FOR SLABS ON GRADE SHALL BE PROPERLY SUPPORTED. PULLING UP MESH AFTER CONCRETE PLACEMENT IS NOT ALLOWED.
- F. MINIMUM COVERAGE FOR REINFORCING SHALL BE THE CLEAR DISTANCE TO THE FACE OF BARS AS FOLLOWS:  
 FOR UNFORMED SURFACES IN CONTACT WITH FOUNDATION: 4"  
 FOR MEMBERS EQUAL OR LESS THAN 12" THICK: 3" WHEN CONCRETE IS POURED AGAINST EARTH; 2" FOR #5 AND SMALLER BARS FROM FORMED OR FINISHED SURFACES EXPOSED TO GROUND OR WEATHER. 2" FOR #6 AND LARGER BARS FROM FORMED OR FINISHED SURFACES EXPOSED TO GROUND OR WEATHER.  
 FOR MEMBERS GREATER THAN 12" THICK AND LESS THAN 24" THICK: 3"  
 FOR MEMBERS EQUAL TO OR GREATER THAN 24" THICK: 4"
- G. ALL REINFORCING STEEL SHALL BE ACCURATELY POSITIONED AND ADEQUATELY TIED USING PROPER CHAIRS OR BOLSTERS PRIOR TO POURING CONCRETE.
- H. SPLICES IN REINFORCEMENT SHALL NOT BE MADE AT OR NEAR POINTS OF MAXIMUM STRESS. SPLICES SHALL BE PER TYPICAL FOUNDATION DETAILS.
- I. ALL CONCRETE EDGES, CORNERS AND INTERSECTIONS SHALL BE TOOLED OR CHAMFERED NO LESS THAN 3/4" WHETHER SHOWN OR NOT ON THE DRAWINGS.
- J. CONSTRUCTION JOINTS WILL NOT BE PERMITTED, EXCEPT AS SHOWN ON THE DRAWINGS, WITHOUT WRITTEN CONSENT OF THE ENGINEER.

**SPECIAL INSPECTION NOTES**

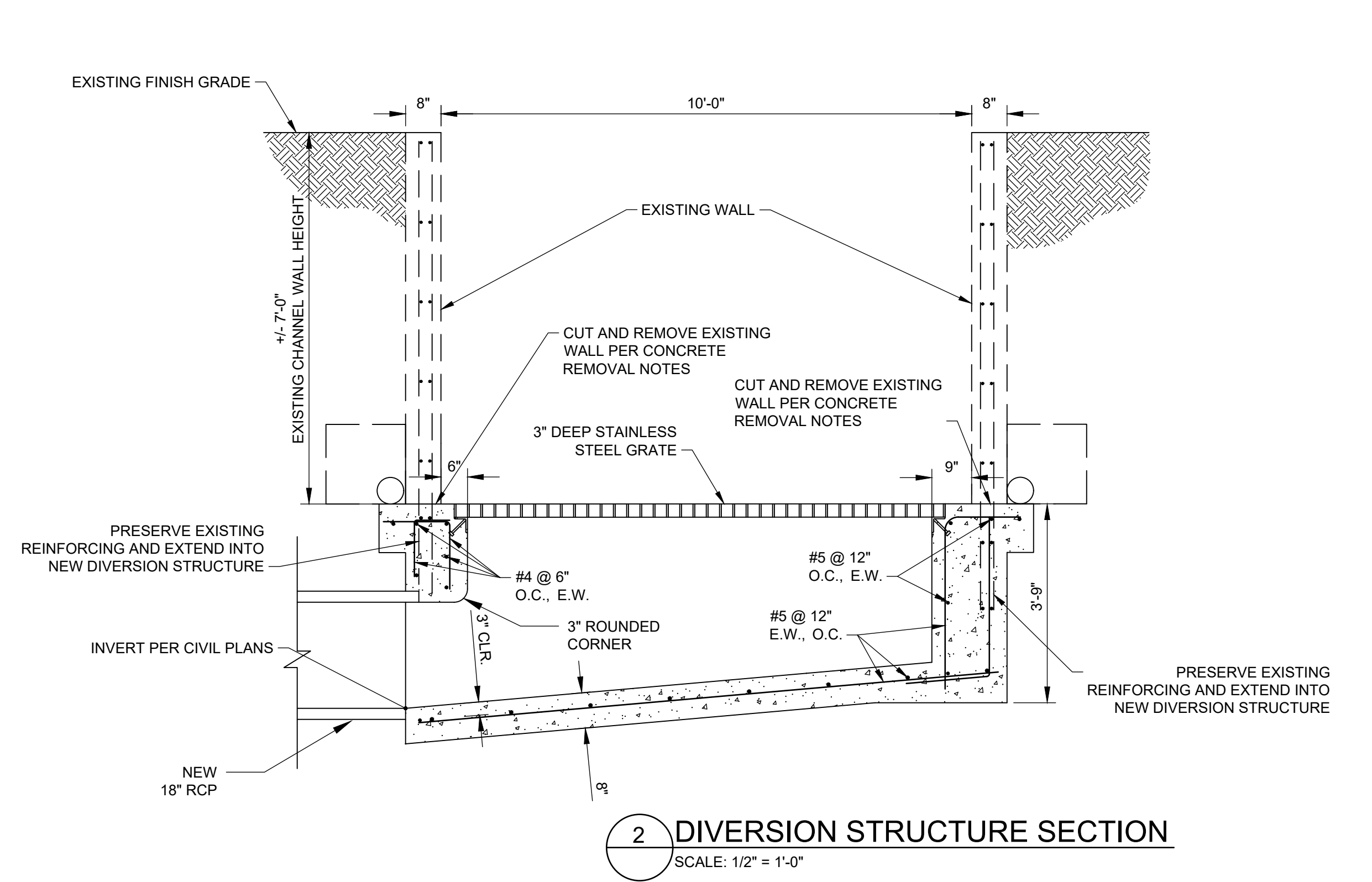
- A. STRUCTURAL OBSERVATIONS REQUIRED FOR THIS PROJECT SHALL BE PERFORMED FOR THE FOLLOWING ITEMS:
  1. GRADING AND COMPACTION OPERATIONS
  2. PLACEMENT OF REINFORCEMENT
- B. SPECIAL INSPECTIONS REQUIRED FOR THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH ACI FOR THE FOLLOWING ITEMS:
  1. CONCRETE TESTING FOR CONCRETE IN EXCESS OF 2500 PSI

**CONCRETE DEMOLITION NOTES**

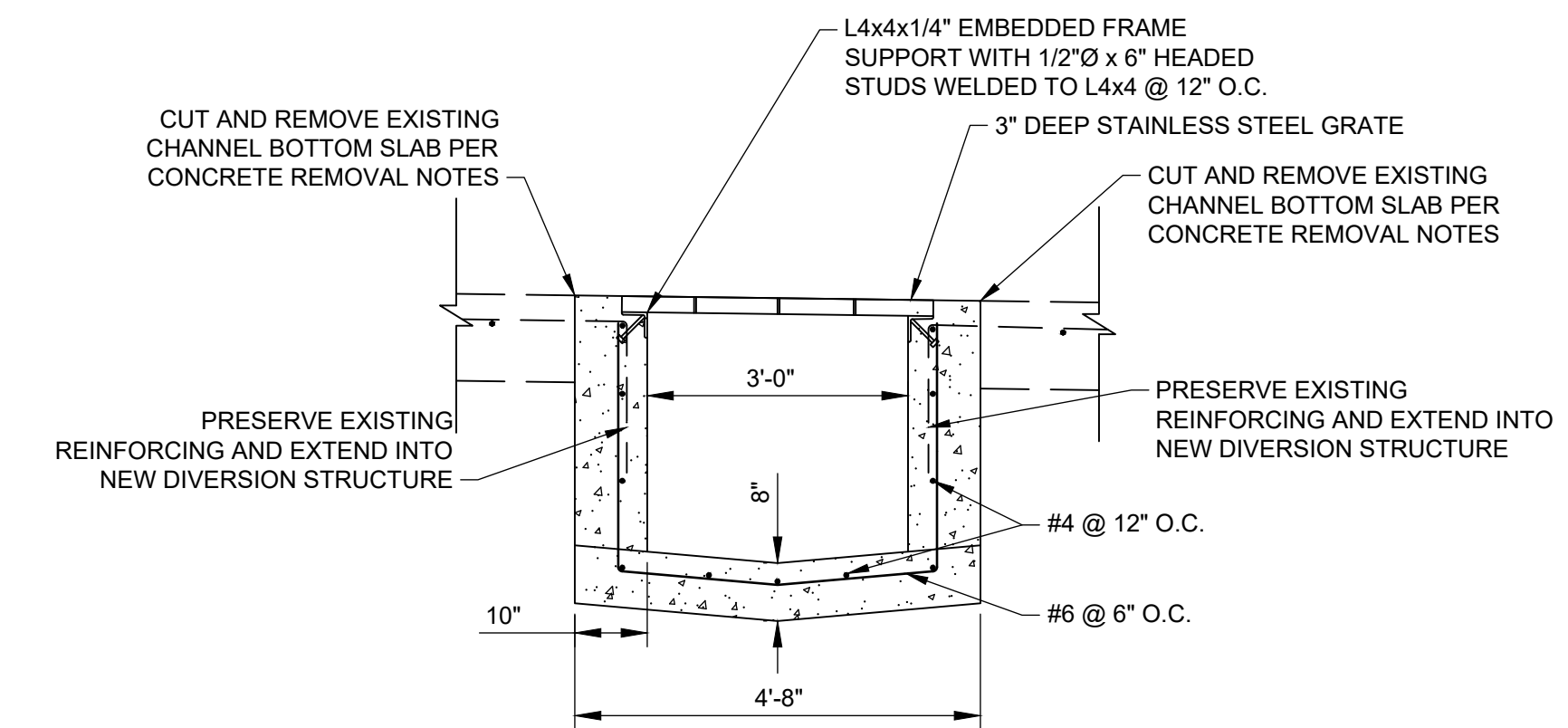
- A. EXISTING CONCRETE CHANNEL WALLS AND SLAB ON GRADE SHALL BE SAW-CUT AS SHOWN ON THE PLAN FOR REMOVALS AND AS REQUIRED TO CREATE A JOINT 1/4 THE THICKNESS OF THE EXISTING CONCRETE THICKNESS. THE PORTIONS OF THE CONCRETE BOX TO BE REMOVED SHALL BE REMOVED BY CRUSHING OR HAMMERING. ANY DAMAGE DURING CONSTRUCTION TO THE BOX CULVERT SHALL BE REPAIRED TO THE ACCEPTANCE OF THE COUNTY OF LOS ANGELES.
- B. EXISTING REINFORCING SHALL BE TIED TO NEW REINFORCEMENT BARS WHERE POSSIBLE.



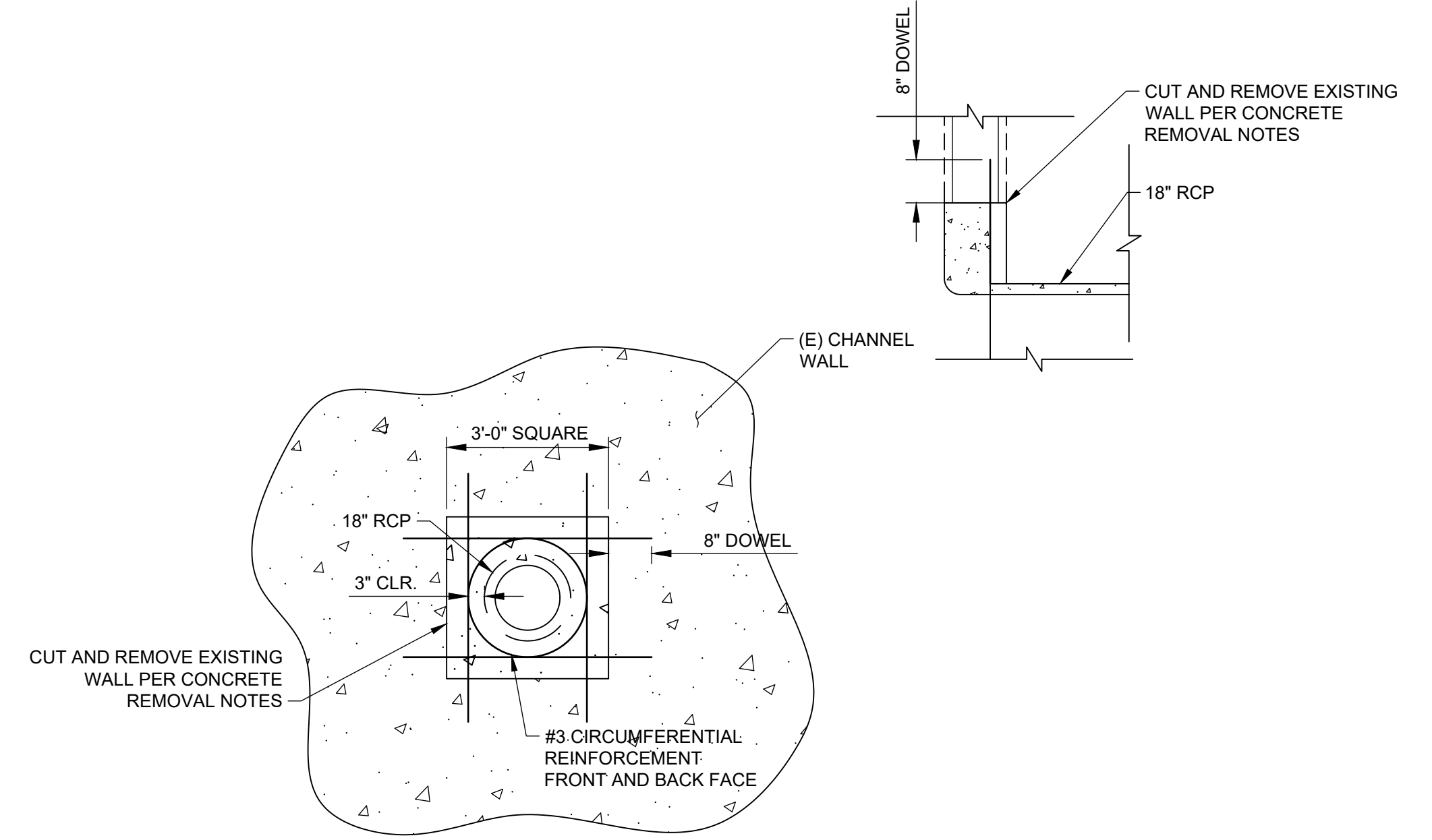
**1 DIVERSION STRUCTURE**  
SCALE: 1/2" = 1'-0"



**2 DIVERSION STRUCTURE SECTION**  
SCALE: 1/2" = 1'-0"



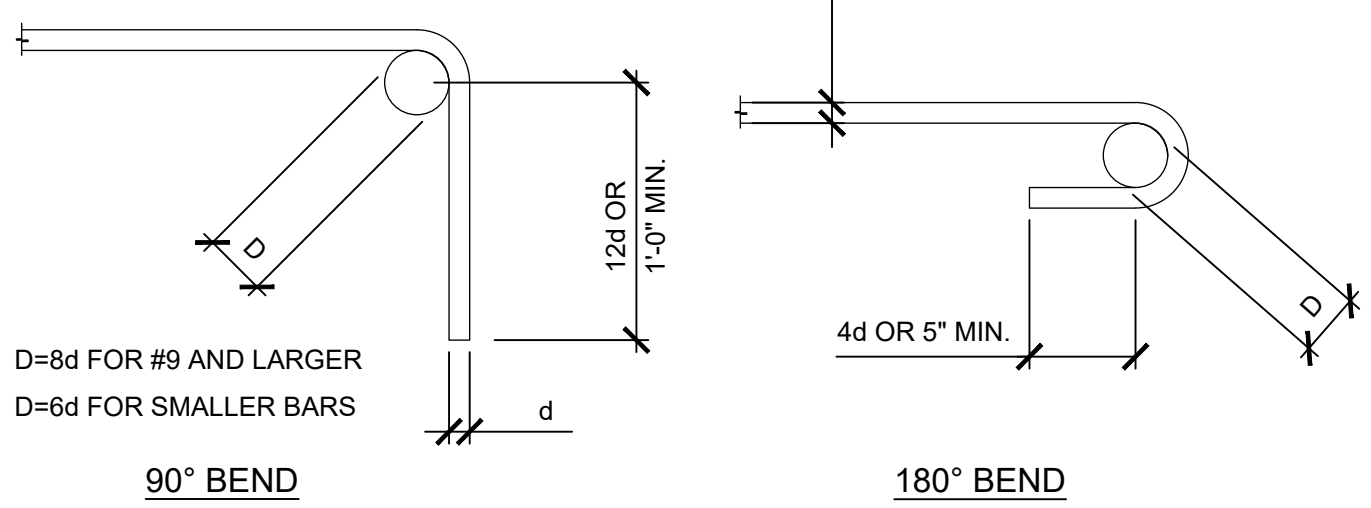
**4 DIVERSION STRUCTURE TRANSVERSE SECTION**  
SCALE: 1/2" = 1'-0"



**2 18" RCP TO ARROYO SECO CHANNEL JUNCTION**  
SCALE: 1/2" = 1'-0"

REINFORCING LAP SPLICE SCHEDULE				
BAR	f <sub>m</sub> =1500	f <sub>c</sub> =3250	f <sub>c</sub> =4000	f <sub>c</sub> =5000
4	32"	21"	20"	18"
5	39"	26"	24"	21"
6	46"	31"	28"	25"
7	53"	36"	33"	29"
8	61"	42"	37"	34"
9	69"	47"	42"	38"

**NOTES:**  
 1. LAPS SHOWN IN THIS TABLE ARE CLASS B, CATEGORY 3 TYPE SPLICES. LAP LENGTH IS BASED UPON SMALLER OF TWO BARS BEING SPLICED WHEN NOT THE SAME SIZE.  
 2. INCREASE LAP LENGTHS BY A FACTOR OF 1.3 FOR HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 305MM (12") OF CONCRETE IS CAST IN THE MEMBER BELOW THIS REINFORCEMENT.



**3 REINFORCING DETAILS**  
SCALE: NONE

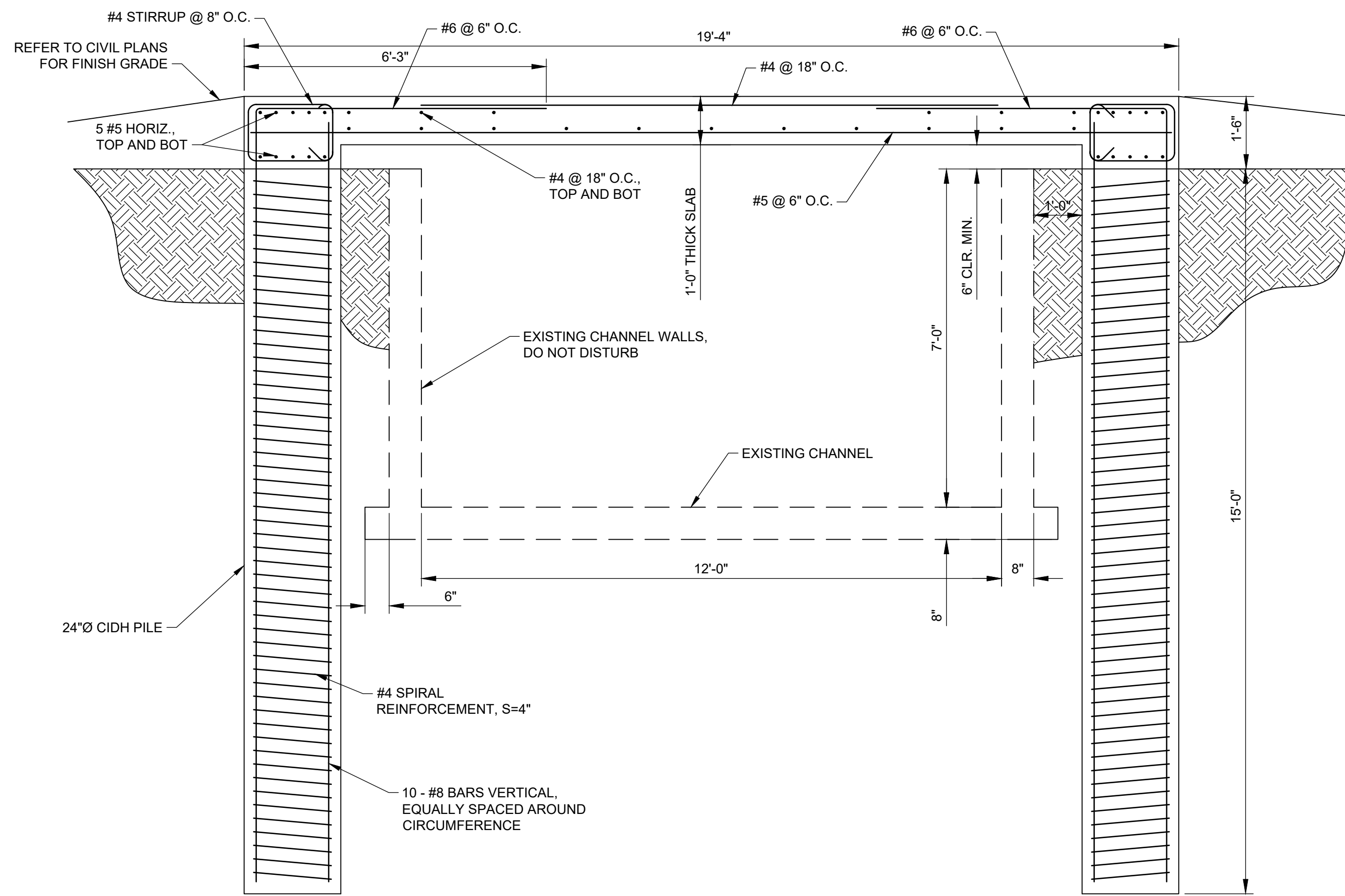
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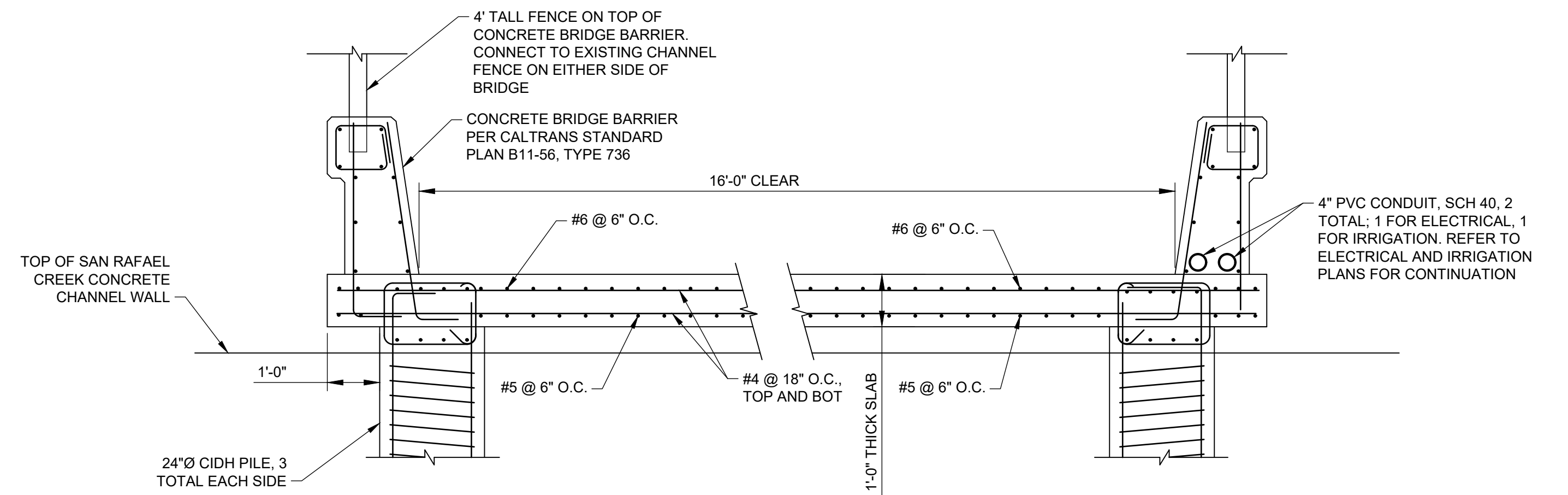


2.1.2024  
100% DESIGN - PERMIT SET

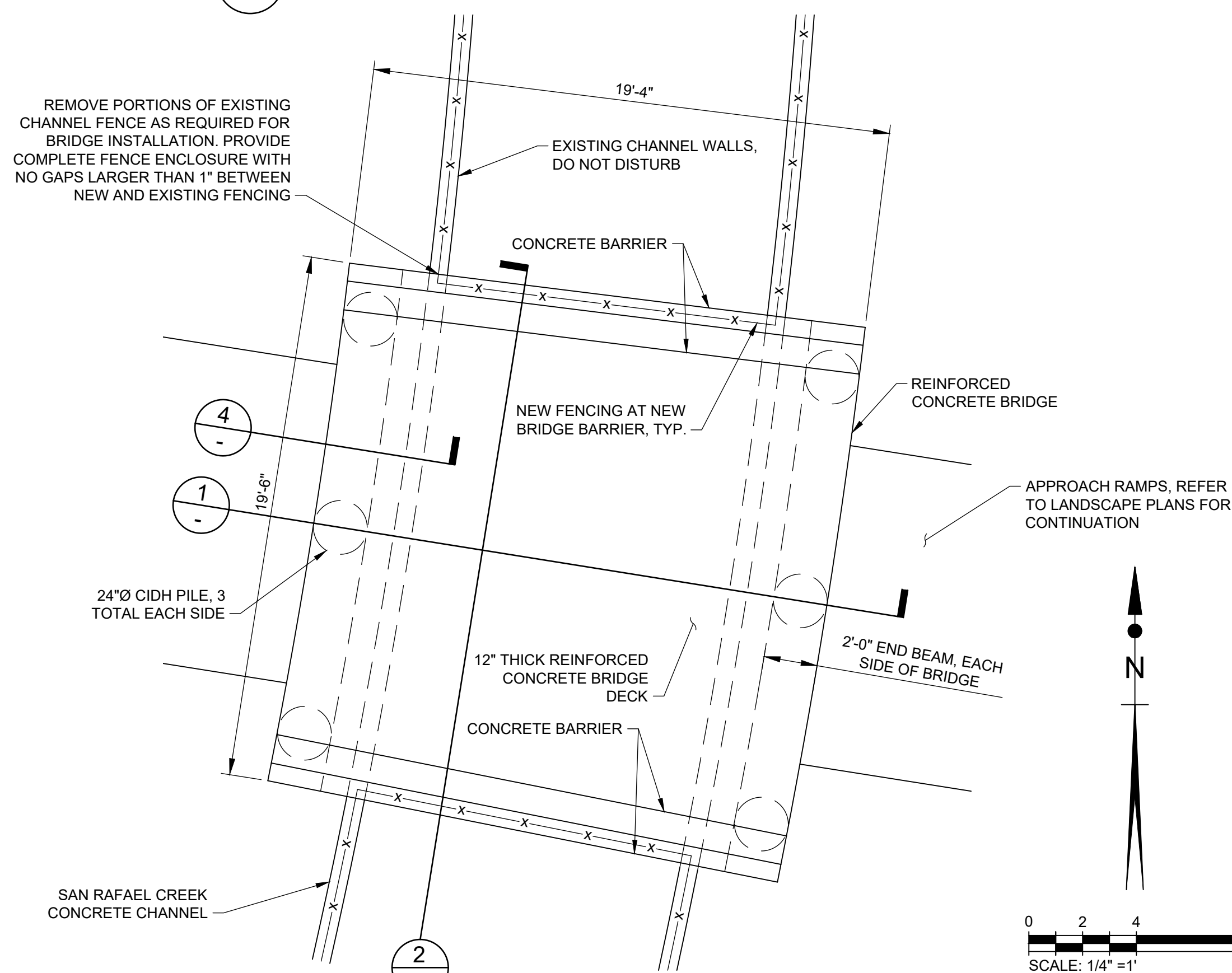
DRAWN BY	REVISIONS					CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SHEET	NO.
CC							PROJECT	SR-S-1	
DESIGNED BY							SHEET TITLE	23	OF 97
CC							DIVERSION STRUCTURE DETAILS		
CHECKED BY							SCALE	DWG. NO.	
JD			AS BUILT				AS SHOWN		
							ACCOUNT NUMBER		
							XXXXXX		



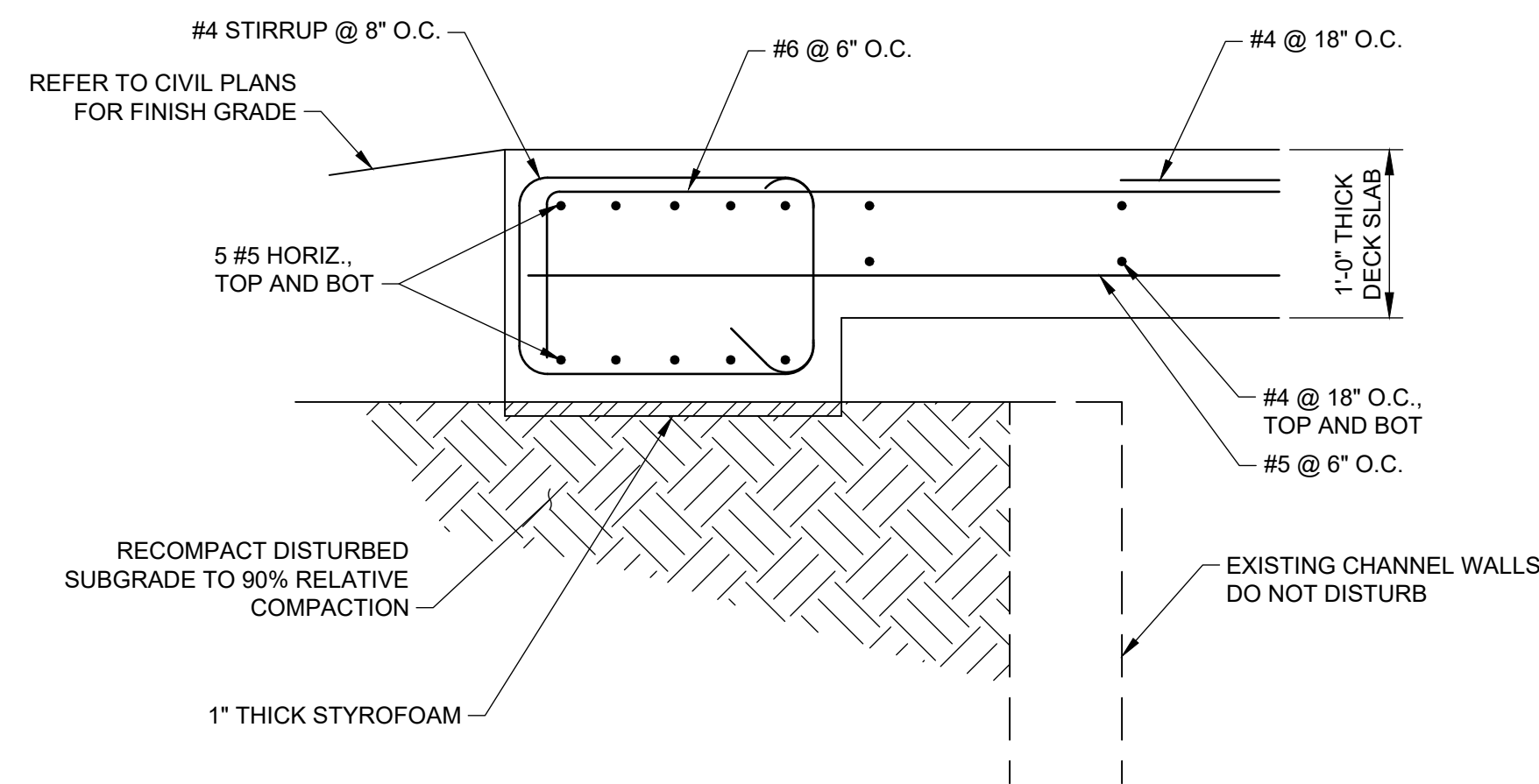
**1 SAN RAFAEL CREEK BRIDGE CROSSING - SECTION**  
SCALE: 1/2" = 1'-0"



**2 SAN RAFAEL CREEK BRIDGE CROSSING SECTION**  
SCALE: 1/4" = 1'-0"



**3 SAN RAFAEL CREEK BRIDGE CROSSING PLAN**  
SCALE: 1/4" = 1'-0"



**4 END BEAM SECTION**  
SCALE: 1" = 1'-0"

**BRIDGE GENERAL NOTES**

**LOAD AND RESISTANCE FACTOR DESIGN**

DESIGN:	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION AND THE CALTRANS AMENDMENTS DATED APRIL 2019
SEISMIC DESIGN:	CALTRANS SEISMIC DESIGN CRITERIA (SDC), VERSION 2.0, DATED APRIL 2019
DEAD LOAD:	150 PCF REINFORCED CONCRETE 15 PSF ARCHITECTURAL STEEL ELEMENTS 41 PSF 1" THICK STEEL PLATE
LIVE LOAD:	90 PSF PEDESTRIAN BRIDGE LOADING HS 20-44 VEHICLE LOADING
SEISMIC LOAD:	PEAK GROUND ACCELERATION: 0.917g

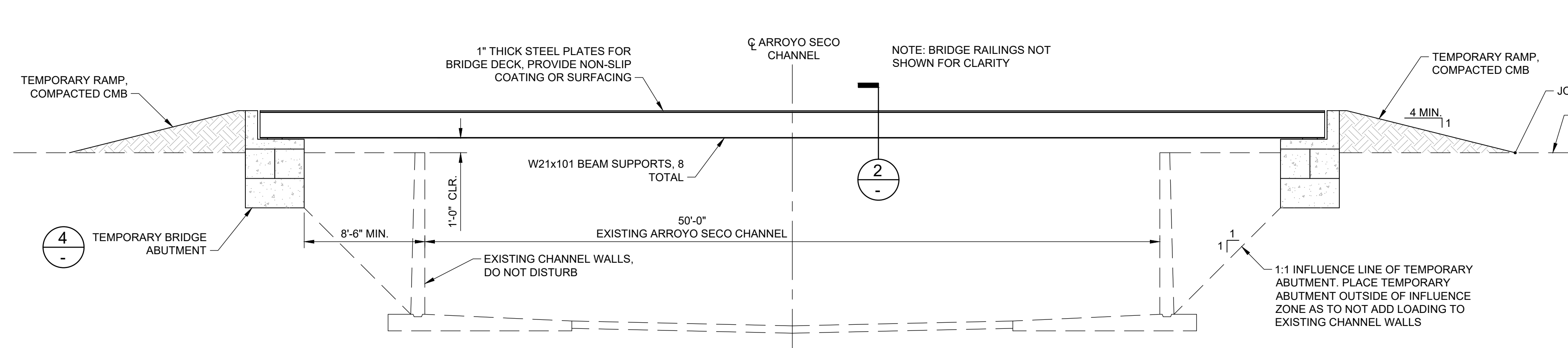
**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

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949.215.5935

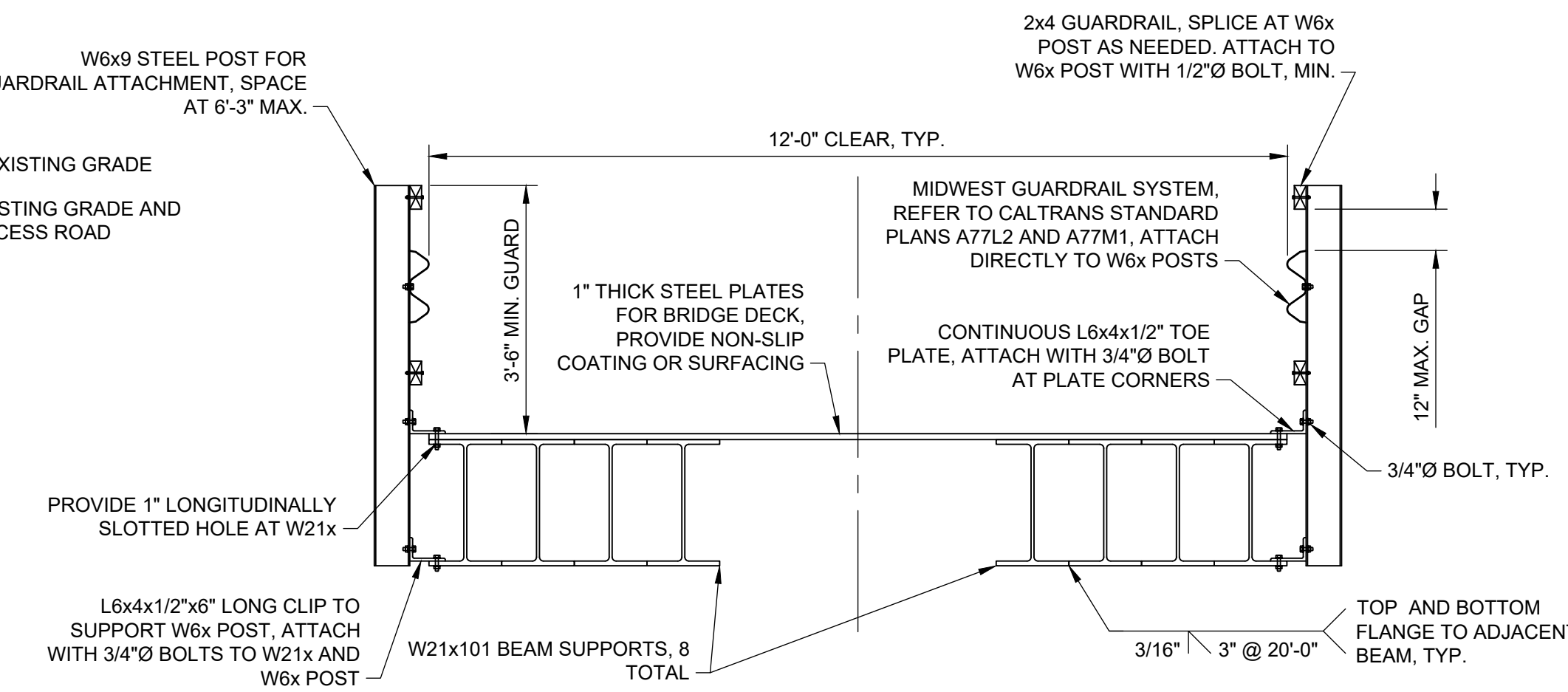


2.1.2024  
100% DESIGN - PERMIT SET

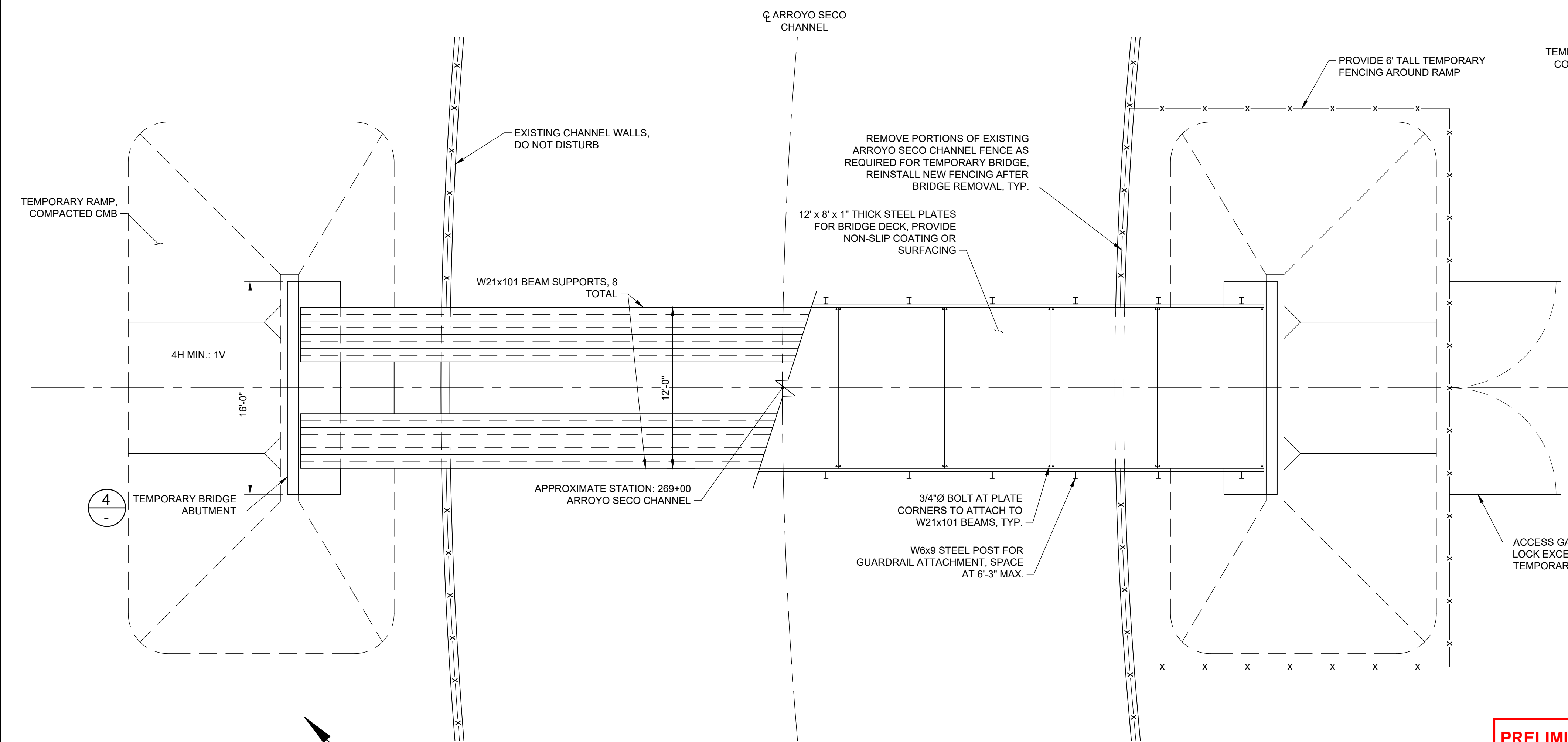
DRAWN BY	REVISIONS					CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SHEET	NO.
CC							ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	24	97
DESIGNED BY							BRIDGE DETAILS		
CC							SCALE AS SHOWN	ACCOUNT NUMBER	XXXXXX
CHECKED BY								DWG. NO.	
JD			AS BUILT						



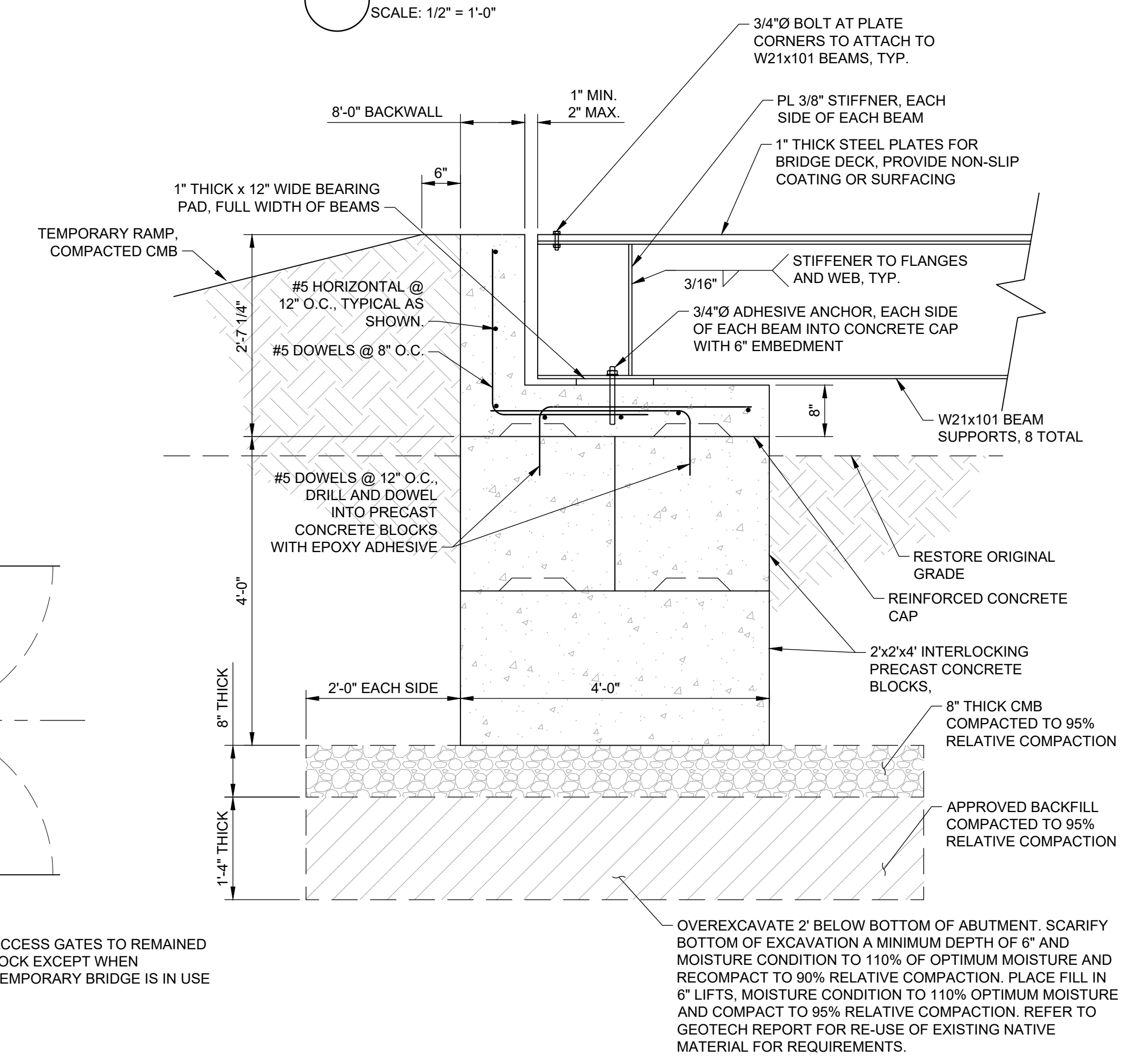
**1** TEMPORARY BRIDGE CROSSING AT ARROYO SECO CHANNEL - SECTION  
SCALE: 3/16" = 1'-0"



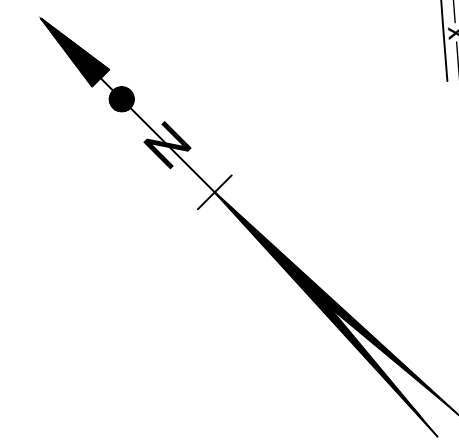
**2** TEMPORARY BRIDGE TYPICAL SECTION  
SCALE: 1/2" = 1'-0"



**3** TEMPORARY BRIDGE CROSSING AT ARROYO SECO CHANNEL - SECTION  
SCALE: 3/16" = 1'-0"

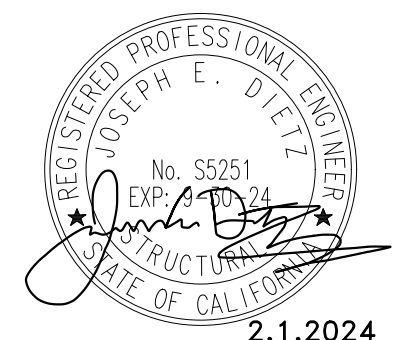


**4** TEMPORARY BRIDGE - ABUTMENT DETAIL  
SCALE: 1/2" = 1'-0"



**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

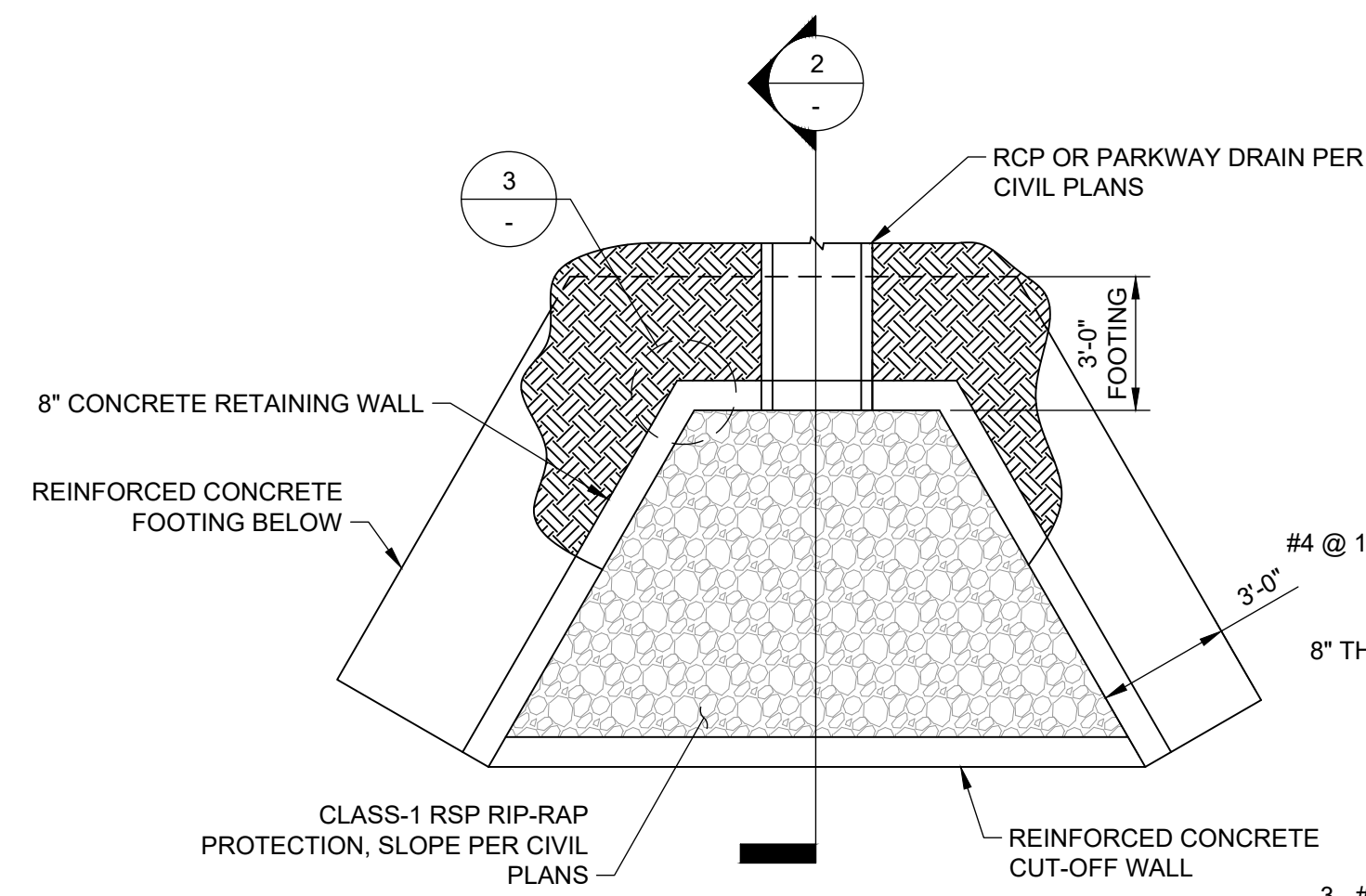
**DSC ENGINEERING**  
STRUCTURAL & CIVIL ENGINEERS  
25231 PASEO DE ALICIA, SUITE 260  
LAGUNA HILLS, CA. 92653  
949.215.5935



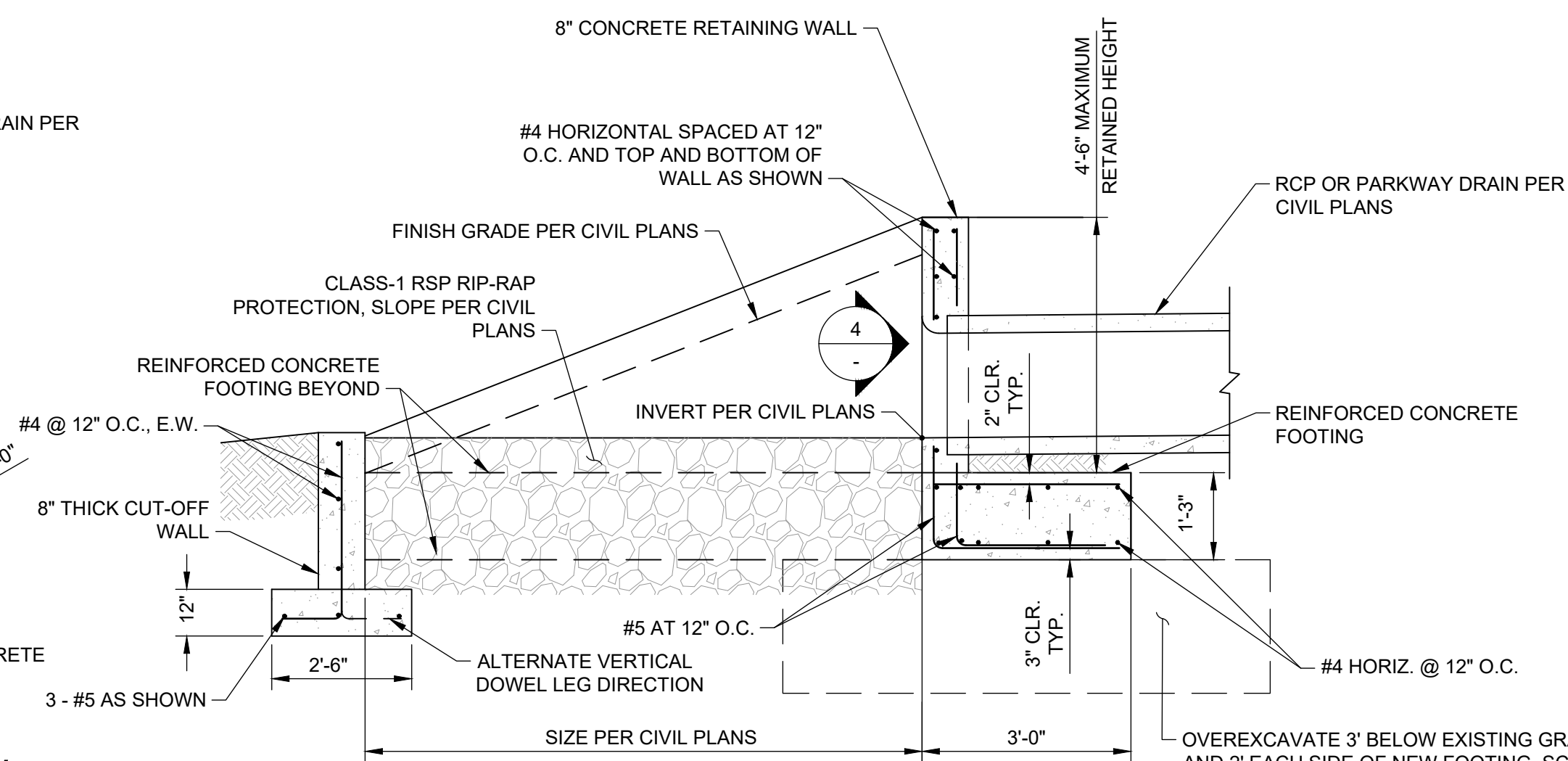
2.1.2024  
100% DESIGN - PERMIT SET

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT		SHEET	
CC						STRUCTURAL DETAILS		SR-S-3	
DESIGNED BY						SHEET TITLE		25 OF 97	
CC						SCALE		DWG. NO.	
CHECKED BY						AS SHOWN		XXXXXX	
JD		AS BUILT				ACCOUNT NUMBER		XXXXXX	

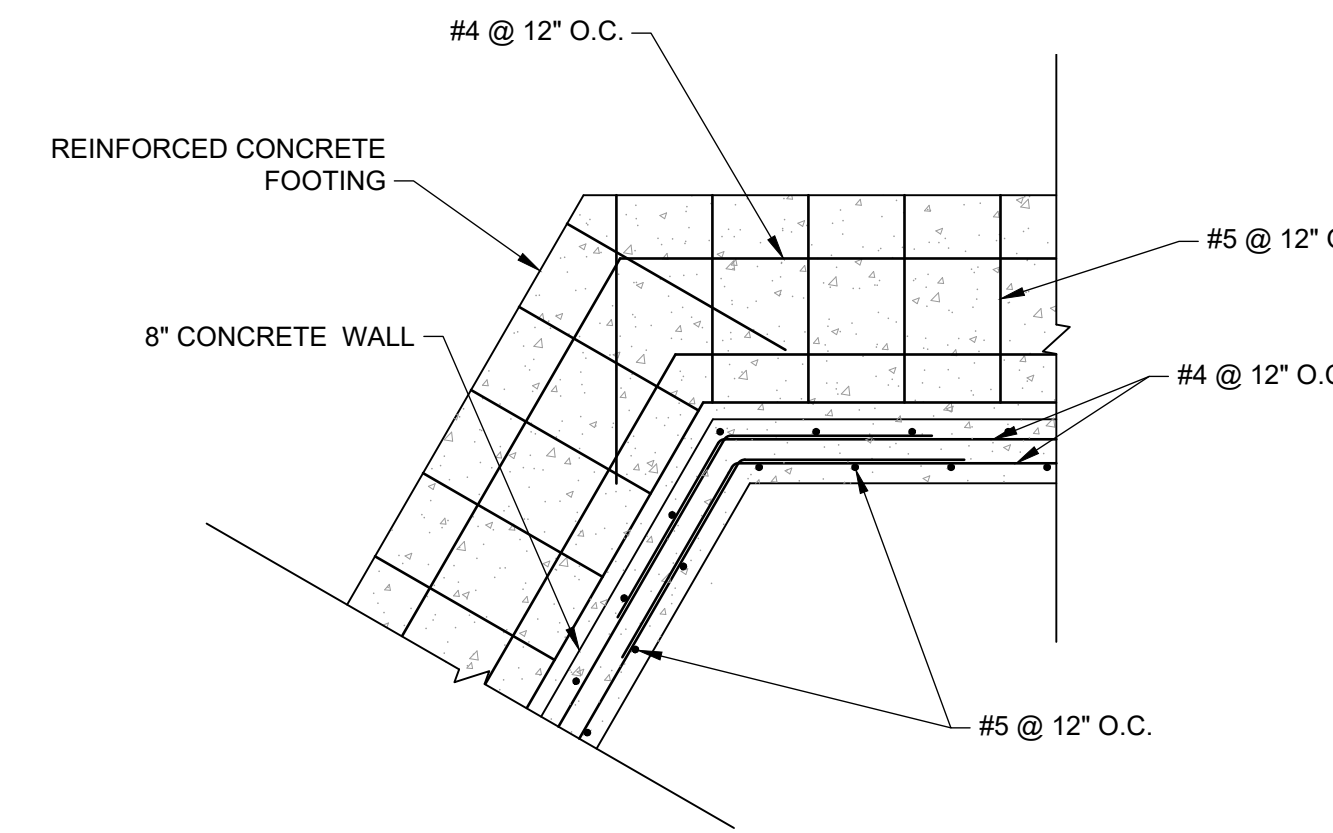




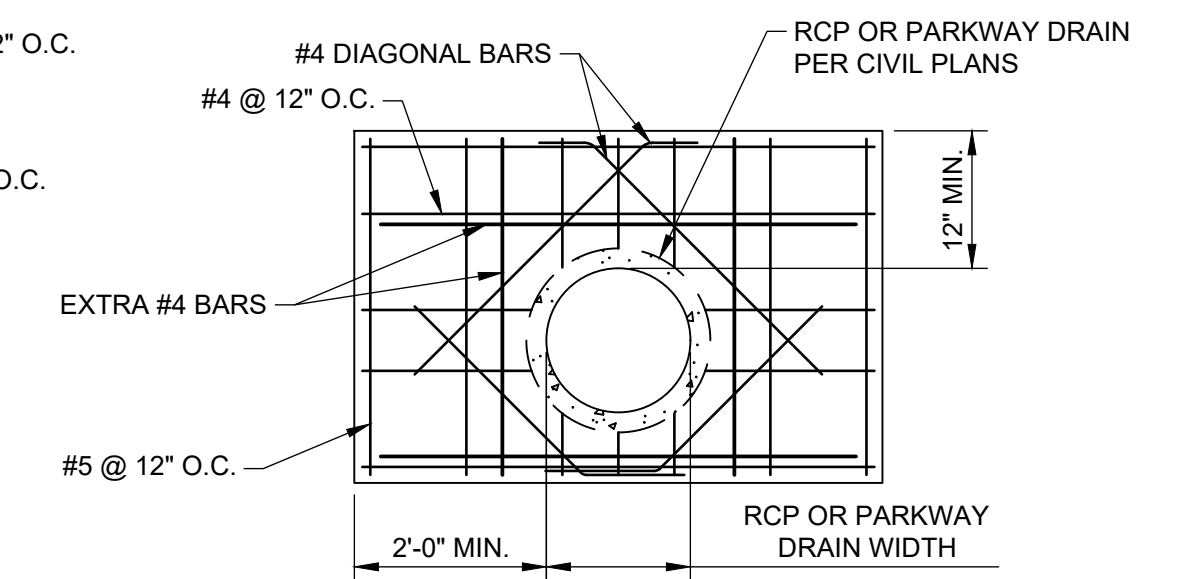
1 TYPICAL HEADWALL PLAN VIEW  
SCALE: 1/4" = 1'-0"



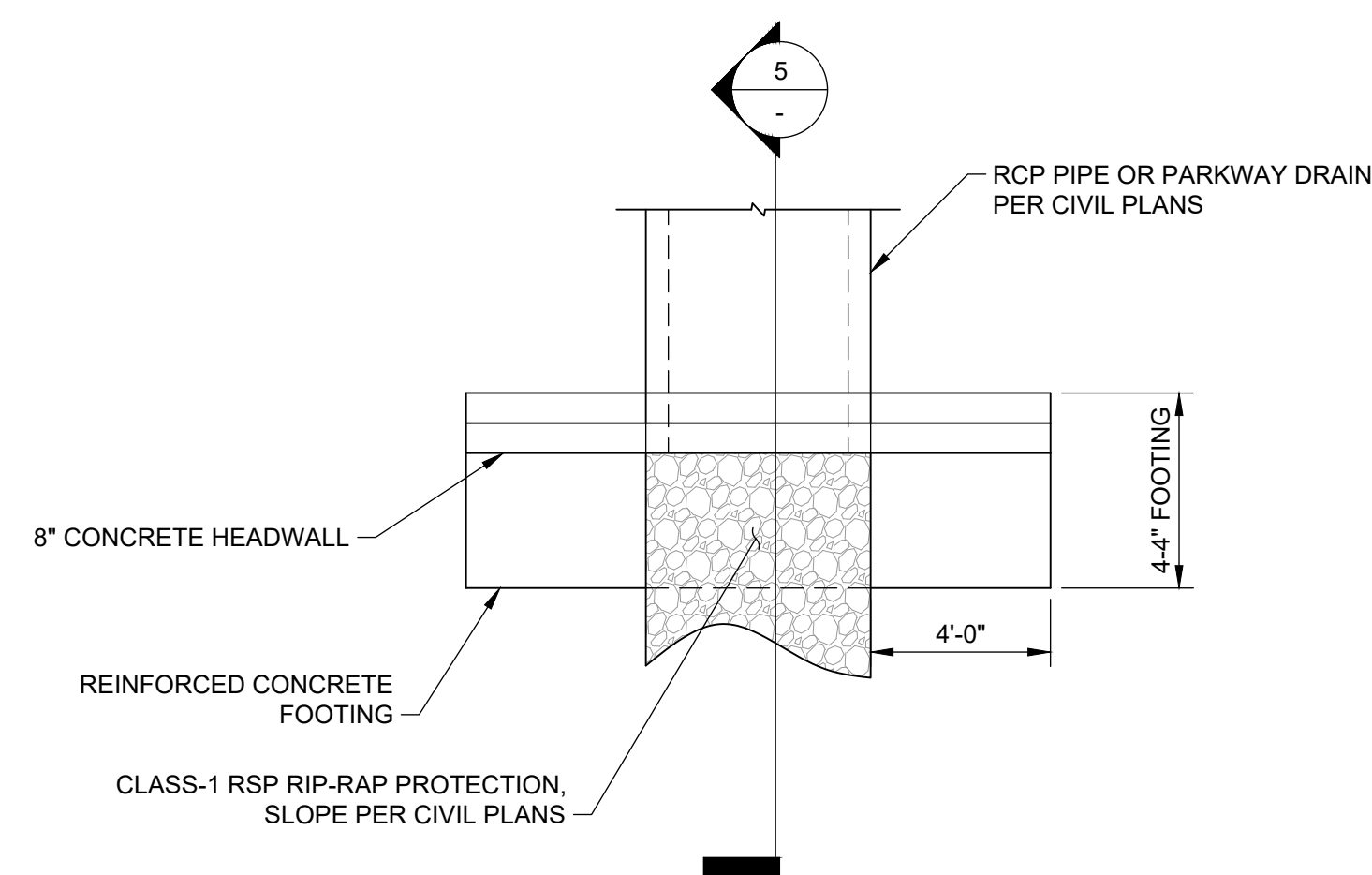
2 TYPICAL HEADWALL SECTION  
SCALE: 1/2" = 1'-0"



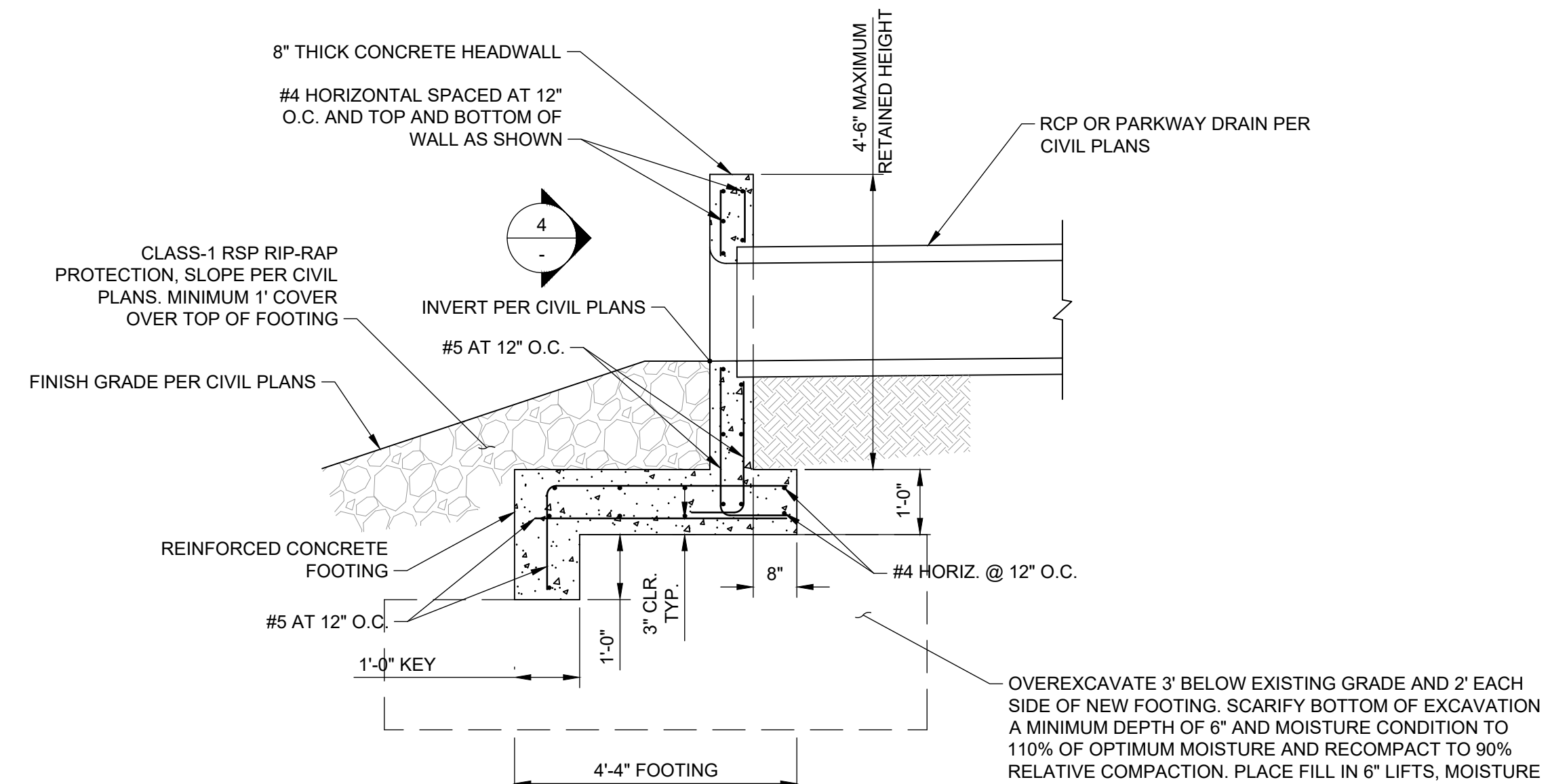
3 HEADWALL/WINGWALL CORNER DETAIL  
SCALE: 1/2" = 1'-0"



4 HEADWALL OUTLET DETAIL  
SCALE: 1/2" = 1'-0"



5 TYPICAL HEADWALL PLAN VIEW  
SCALE: 1/4" = 1'-0"



6 TYPICAL HEADWALL SECTION  
SCALE: 1/2" = 1'-0"

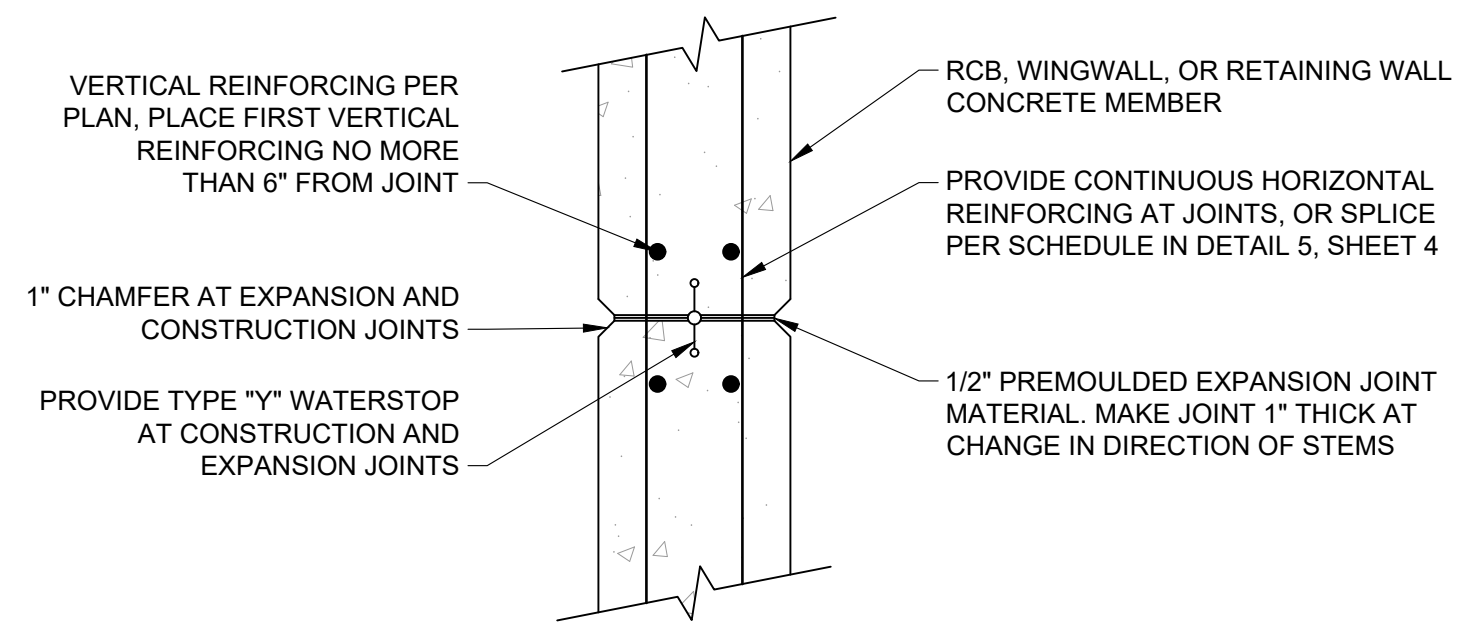
**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

**DSC ENGINEERING**  
STRUCTURAL & CIVIL ENGINEERS  
25231 PASEO DE ALICIA, SUITE 260  
LAGUNA HILLS, CA. 92653  
949.215.5935

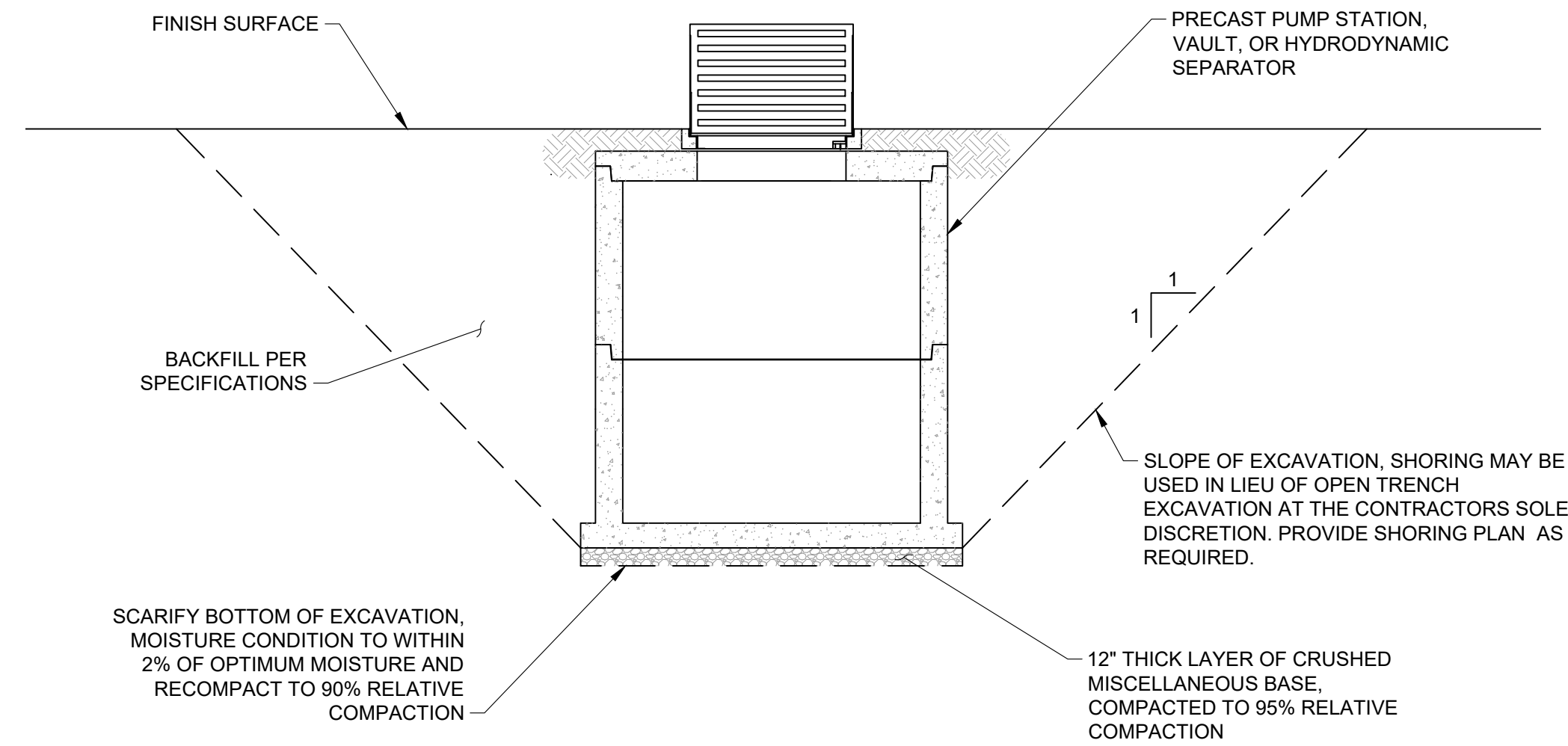


2.1.2024  
100% DESIGN - PERMIT SET

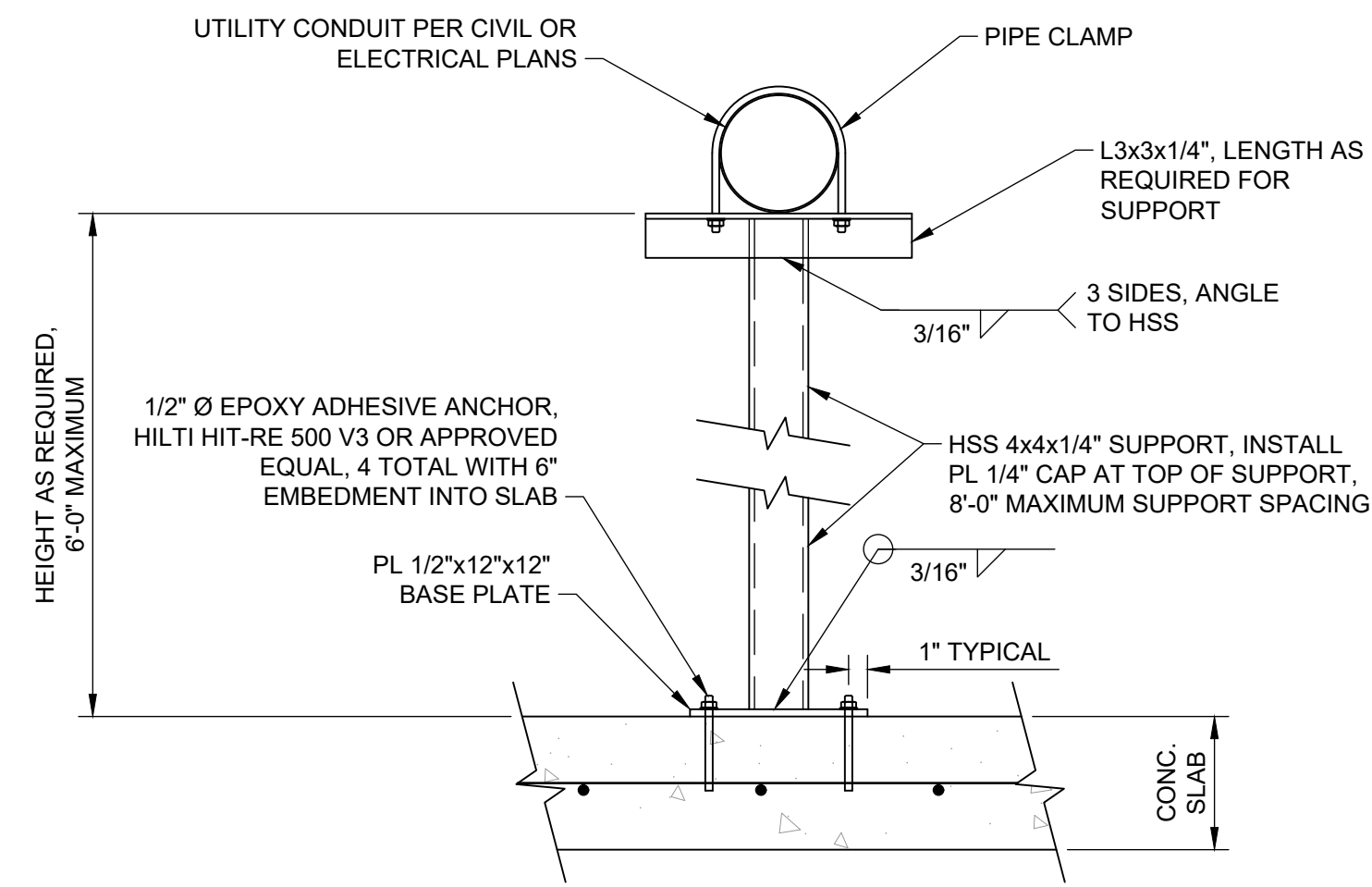
DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET		
CC							SR-S-4		
DESIGNED BY						SHEET TITLE	26		OF 97
CC						SCALE	AS SHOWN		
CHECKED BY						ACCOUNT NUMBER	XXXXXX		DWG. NO.
JD		AS BUILT							



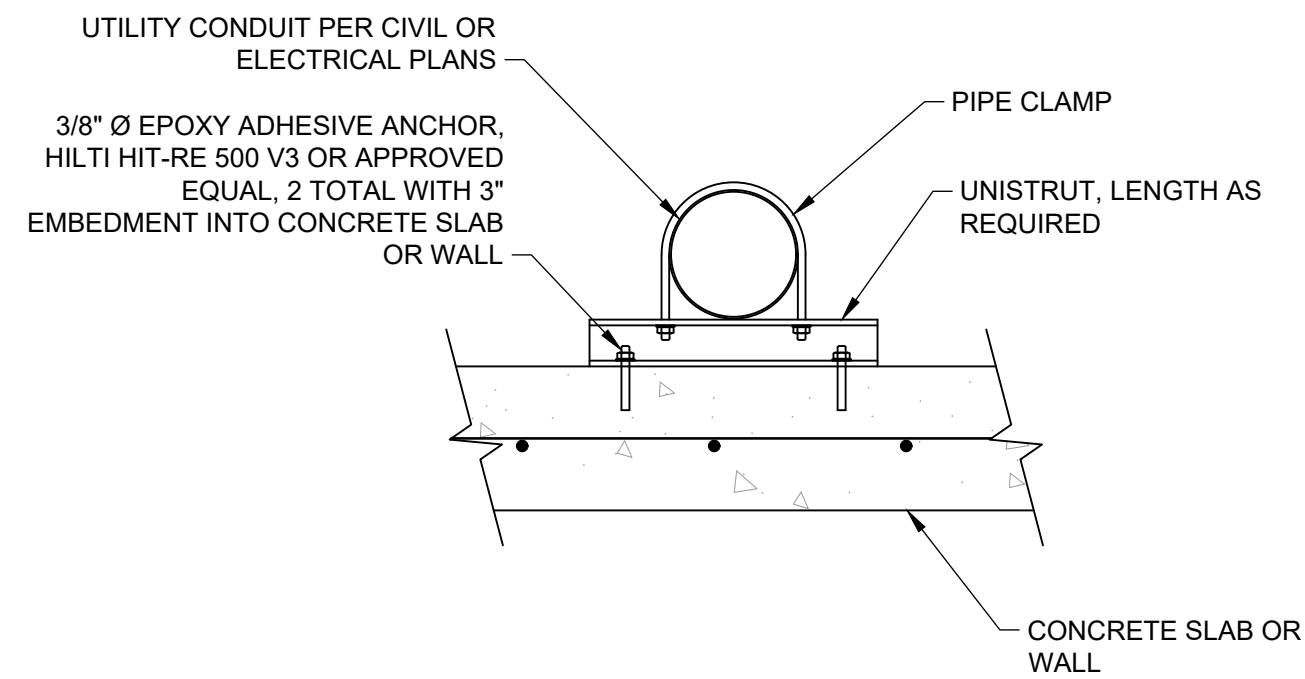
**1** TYPICAL CONSTRUCTION/EXPANSION JOINT DETAIL  
SCALE: 1"=1'-0"



**2** TYPICAL BEDDING FOR PRECAST ITEMS  
SCALE: NONE



**3** CONDUIT/UTILITY SUPPORT DETAIL  
SCALE: 1" = 1'



**4** CONDUIT/UTILITY ANCHORAGE DETAIL  
SCALE: 1" = 1'

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

**DSC ENGINEERING**  
STRUCTURAL & CIVIL ENGINEERS  
25231 PASEO DE ALICIA, SUITE 260  
LAGUNA HILLS, CA. 92653  
949.215.5935

REGISTERED PROFESSIONAL ENGINEER  
JOSEPH E. D'ELIZIO  
No. S5251  
EXP. 12/31/24  
STATE OF CALIFORNIA

2.1.2024  
100% DESIGN - PERMIT SET

DRAWN BY CC	REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY CC	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SHEET
CHECKED BY JD							SHEET TITLE	SR-S-5
			AS BUILT				STRUCTURAL DETAILS	27 OF 97
							SCALE	DWG. NO.
							AS SHOWN	
							ACCOUNT NUMBER	XXXXXX

**TREE PROTECTION NOTES:**

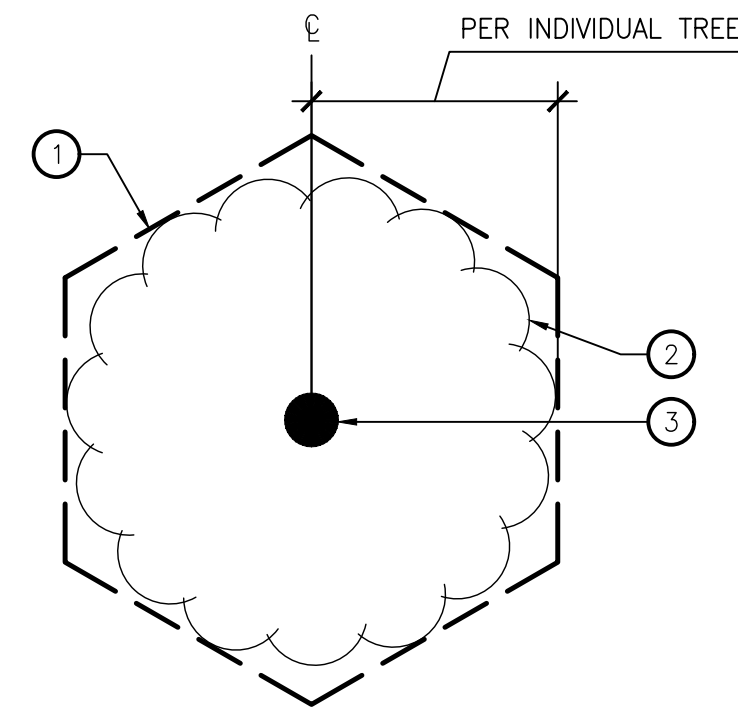
1. PROTECTION BARRIER: A PROTECTION BARRIER SHALL BE INSTALLED AROUND THE TREE TREES TO BE PRESERVED. THE BARRIER SHALL BE CONSTRUCTED OF CHAIN-LINK FENCING. THE BARRIER SHALL BE PLACED AS FAR FROM THE BASE OF THE TREE(S) AS POSSIBLE, PREFERABLY AT THE DRIP LINE. THE FENCING SHALL BE MAINTAINED IN GOOD REPAIR THROUGHOUT THE DURATION OF THE PROJECT, AND SHALL NOT BE REMOVED, RELOCATED, OR ENCROACHED UPON WITHOUT PERMISSION OF THE ARBORIST INVOLVED.
2. STORAGE OF MATERIALS: THERE SHALL BE NO STORAGE OF MATERIALS OR SUPPLIES OF ANY KINDS WITHIN THE AREA OF THE PROTECTION BARRIERS. CONCRETE AND CEMENT MATERIALS, BLOCK, STONE, SAND AND SOIL SHALL NOT BE PLACED WITHIN THE DRIPLINE OF THE TREE.
3. NO VEHICLE OR EQUIPMENT IS TO BE OPERATED OR PARKED UNDER A TREE, NOR ARE ANY MATERIALS TO BE STORED WITHIN THE DRIPLINE OF A TREE OR LEANED AGAINST A TREE TRUNK. DO NOT PILE OR COMPACT SOIL WITHIN A DRIPLINE.
4. NO CHEMICAL HERBICIDES ARE TO BE USED WITHIN 100 FEET OF A TREE'S DRIPLINE.
5. DO NOT STRIP TOPSOIL AROUND TREES. ANY VEGETATION TO BE REMOVED SHOULD BE REMOVED BY CUTTING AT GROUND LEVEL RATHER THAN PULLING OUT BY EQUIPMENT.
6. FUEL STORAGE: FUEL STORAGE SHALL NOT BE PERMITTED WITHIN 150 FEET OF ANY TREE TO BE PRESERVED. REFUELING, SERVICING AND MAINTENANCE OF EQUIPMENT AND MACHINERY SHALL NOT BE PERMITTED WITHIN 150 FEET OF PROTECTED TREES.
7. DEBRIS AND WASTE MATERIALS: DEBRIS AND WASTE FROM CONSTRUCTION OR OTHER ACTIVITIES SHALL NOT BE PERMITTED WITHIN PROTECTED AREAS. WASH DOWN OF CONCRETE OR CEMENT HANDLING EQUIPMENT, IN PARTICULAR, SHALL NOT BE PERMITTED WITHIN 150 FEET OF PROTECTED TREES.
8. GRADE CHANGES: GRADE CHANGES CAN BE PARTICULARLY DAMAGING TO TREES. EVEN AS A LITTLE AS TWO INCHES OF FILL CAN CAUSE THE DEATH OF A TREE. LOWERING THE GRADE CAN DESTROY MAJOR PORTIONS OF THE ROOT SYSTEM. ANY GRADE CHANGES PROPOSED SHOULD BE APPROVED BY A REGISTERED CONSULTING ARBORIST BEFORE CONSTRUCTION BEGINS, AND PRECAUTIONS TAKEN TO MITIGATE POTENTIAL INJURIES.
9. DAMAGES: ANY DAMAGES OR INJURIES TO TREES SHALL BE REPORTED TO THE PROJECT ARBORIST AS SOON AS POSSIBLE. SEVERED ROOTS SHALL BE PRUNED CLEANLY TO HEALTHY TISSUE USING PROPER PRUNING TOOLS. BROKEN BRANCHES OR LIMBS SHALL BE PRUNED ACCORDING TO INTERNATIONAL SOCIETY OF ARBORCULTURE PRUNING GUIDELINES AND ANSI A-300 PRUNING STANDARDS.
10. PREVENTATIVE MEASURES: BEFORE CONSTRUCTION BEGINS, FERTILIZATION OF AFFECTED TREES IS RECOMMENDED TO IMPROVE TREE VIGOR AND HEALTH. SOIL ANALYSES TESTING SHOULD BE COMPLETED TO ASSURE FERTILIZATION WITH THE APPROPRIATE FERTILIZER PRODUCTS. PRUNING OF THE TREE CANOPIES AND BRANCHES SHOULD BE DONE AT THE DIRECTION OF THE PROJECT ARBORIST TO REMOVE ANY DEAD OR BROKEN BRANCHES AND TO PROVIDE NECESSARY CLEARANCES FOR THE CONSTRUCTION EQUIPMENT.
11. HAND DIG VERTICAL TRENCH AT THE FINAL CUT LINE TO FINAL GRADE AND CLEANLY CUT ANY ROOTS ENCOUNTERS BEFORE SEALING WITH APPROVED TREE SEAL. THIS PROCEDURE IS TO PROTECT THE ROOT SYSTEM FROM UNNECESSARY DAMAGE BY EXCAVATION EQUIPMENT.
12. CONTRACTOR IS RESPONSIBLE FOR THE HEALTH OF EXISTING TREES DURING CONSTRUCTION AND MAINTENANCE PERIOD. DURING CONSTRUCTION THE IMPACTED TREES SHALL BE CLOSELY MONITORED TO FURTHER MITIGATE SHOCK SYMPTOMS IF THEY OCCUR. THE CONTRACTOR SHOULD BE PREPARED TO PROVIDE TEMPORARY WATER TO IRRIGATE AND WASH THE DUST FROM THE FOLIAGE IF NEEDED. CONTACT THE ARBORIST IF A DECLINE IN TREE CONDITION IS NOTED.

**SHEET INDEX:**

SHEET	SHEET TITLE
SR-L-1	TREE DISPOSITION LEGEND AND NOTES
SR-L-2	TREE DISPOSITION PLAN
SR-L-3	TREE DISPOSITION PLAN
SR-L-4	TREE DISPOSITION PLAN
SR-L-5	CONSTRUCTION SCHEDULE AND NOTES
SR-L-6	CONSTRUCTION PLAN
SR-L-7	CONSTRUCTION PLAN
SR-L-8	CONSTRUCTION PLAN
SR-L-9	CONSTRUCTION DETAILS
SR-L-10	CONSTRUCTION DETAILS
SR-L-11	PLANTING LEGEND AND NOTES
SR-L-12	PLANTING PLAN
SR-L-13	PLANTING PLAN
SR-L-14	PLANTING PLAN
SR-L-15	PLANTING DETAILS

**NOTES**

- TYPICAL FENCE CONFIGURATION SHOWN. ACTUAL FIELD CONDITIONS MAY VARY LAYOUT.
- FENCE TO BE INSTALLED AROUND TREE CANOPY WHERE SITE LOGISTICS ALLOW. WHERE PATHS OF TRAVEL, ROADS, OR OTHER SITE LOGISTICS CONFLICT, FENCE MAY NOT COVER THE FULL EXTENT OF TREE CANOPY.



**LEGEND**

- 5' HT. CHAIN LINK FENCE.
- EXTENT OF TREE CANOPY (DRIPLINE).
- TREE TRUNK.

**1 TREE PROTECTION ZONE TYP.**  
SCALE: NOT TO SCALE

**TREE DISPOSITION LEGEND:**

SYMBOL	BOTANICAL NAME "COMMON NAME"	ACTION /STATUS	DIAMETER (INCHES)	JURISDICTION
511	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	8.7	LOS ANGELES
512	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	11.6, 8.9, 8, 6.5	LOS ANGELES
513	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	12.4, 10.6	LOS ANGELES
514	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	18.4	LOS ANGELES
515	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	4.8, 4.3	LOS ANGELES
516	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	11	LOS ANGELES
517	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	9	LOS ANGELES
518	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	12	PASADENA
519	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	12	PASADENA
520	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	18	PASADENA
521	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	5	PASADENA
523	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE	12.4, 5.5, 5.1	PASADENA
524	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	13.8, 5.6	PASADENA
525	QUERCUS DURATA "GABRIELIENSIS" SN. GABRIEL MTS. LEATHER OAK	PROTECT-IN-PLACE	2.3	PASADENA
526	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE	9.6, 5.7	PASADENA
527	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE	21.1	PASADENA
528	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE	15.1	PASADENA
529	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE	13.9, 6.2	PASADENA
530	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE	12.4, 12.2, 6.8	PASADENA
531	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	15.8	PASADENA
532	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	15.0	PASADENA
533	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	16.8	PASADENA
534	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	13.9, 7.1	PASADENA
535	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	14.8, 9.8	PASADENA
536	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	12.5, 10.0	PASADENA
537	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	18.5	PASADENA

**TREE DISPOSITION LEGEND:**

SYMBOL	BOTANICAL NAME "COMMON NAME"	ACTION /STATUS	DIAMETER (INCHES)	JURISDICTION
538	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	22.8	PASADENA
539	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	19.5, 15.1, 14.4, 4.5	PASADENA
540	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	14.6	PASADENA
541	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	15.7	PASADENA
542	JUGLANS CALIFORNICA "SOUTHERN CALIFORNIA BLACK WALNUT"	PROTECT-IN-PLACE	5.8, 2.2	PASADENA

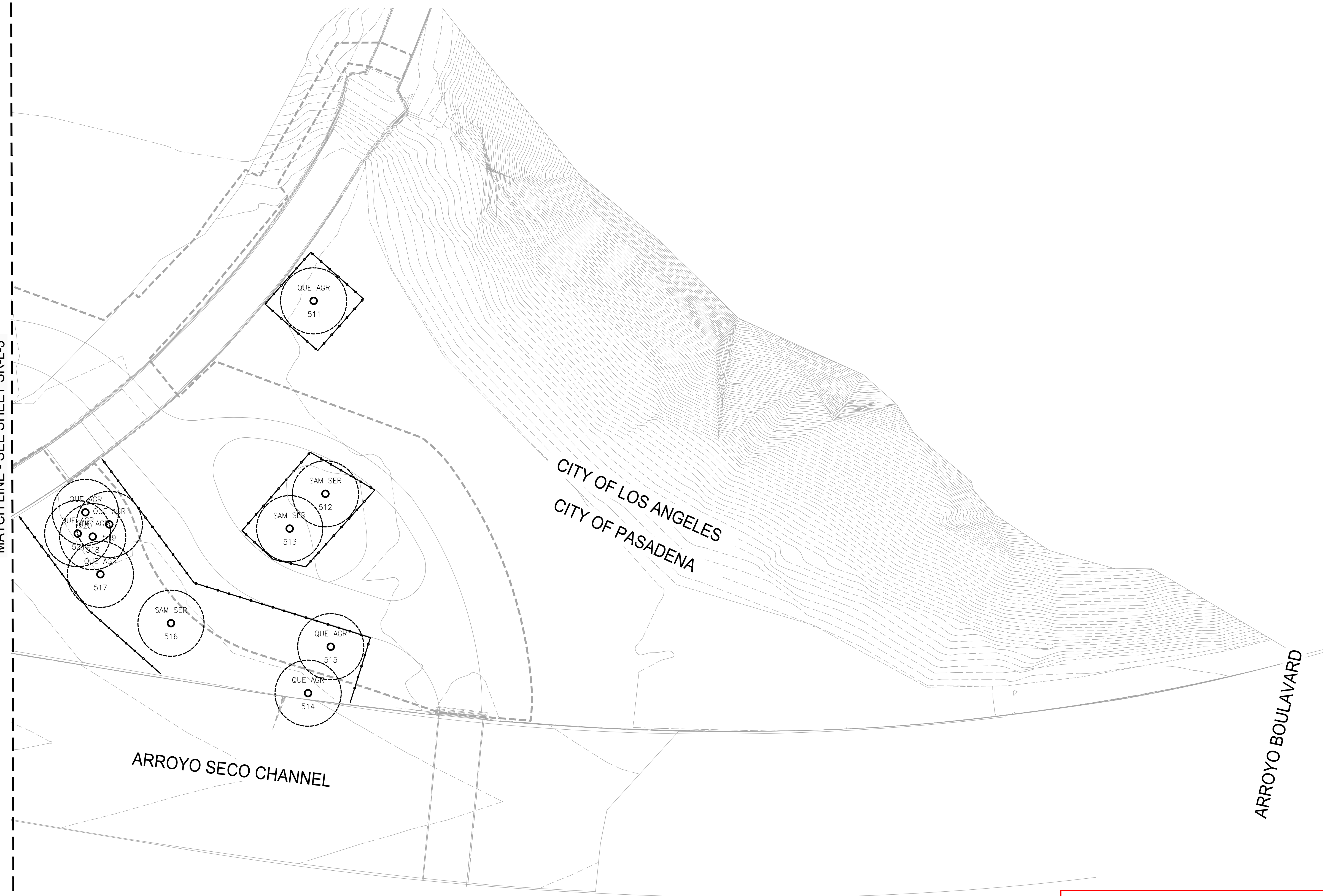
TOTAL TREES TO BE REMOVED: 5  
TOTAL TREES TO BE REMOVED IN PASADENA: 5  
PROTECTED TREES TO BE REMOVED IN PASADENA: 1 MATURE TREE

**PRELIMINARY -NOT FOR CONSTRUCTION**

06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
YY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET	SR-L-1
DESIGNED BY							SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	18	OF 48
YY							TREE DISPOSITION LEGEND AND NOTES		
CHECKED BY							SCALE AS SHOWN	ACCOUNT NUMBER	XXXXXX
JZ			AS BUILT					DWG. NO.	

MATCH LINE - SEE SHEET SR-L-3



**SYMBOLS**

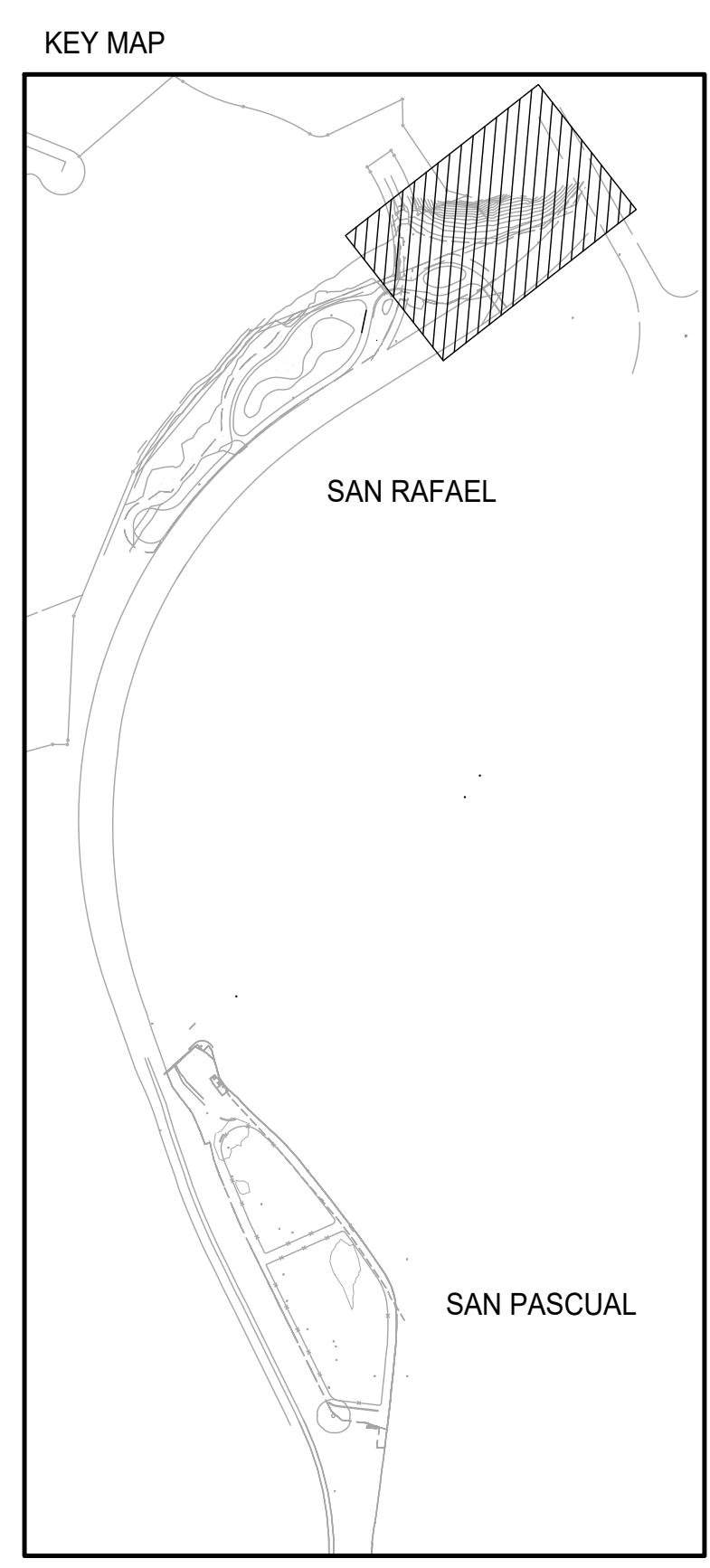
**TREE TO REMOVE:**

xxx xxx — TREE SPECIES  
 X — REFER TO TREE DISPOSITION SCHEDULE

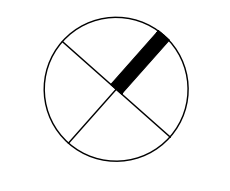
**TREE TO PROTECT IN PLACE:**

xxx xxx — TREE SPECIES  
 o — REFER TO TREE DISPOSITION SCHEDULE

— — — — — TREE PROTECTION FENCE



**PRELIMINARY - NOT FOR CONSTRUCTION**  
 06/03/2024



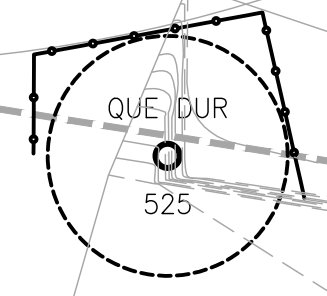
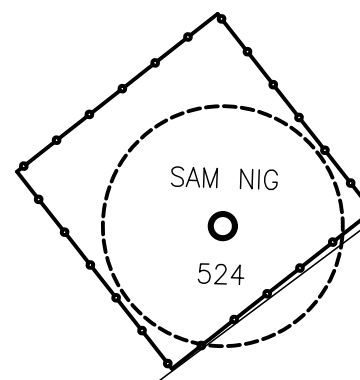
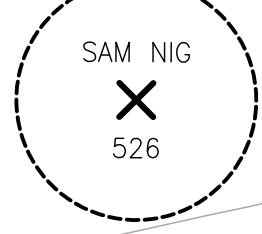
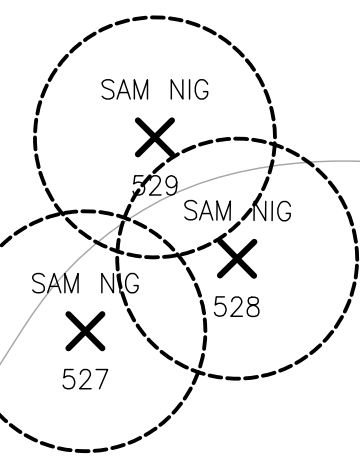
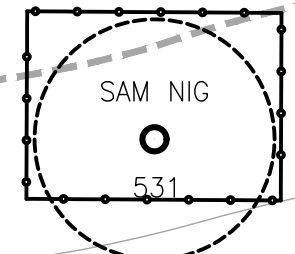
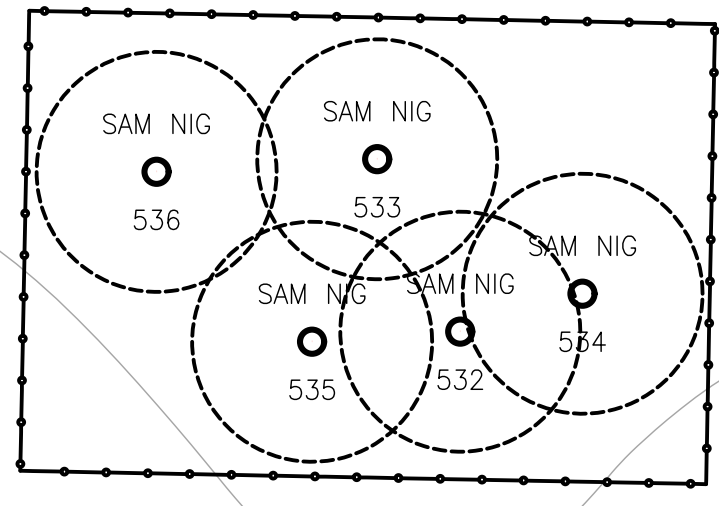
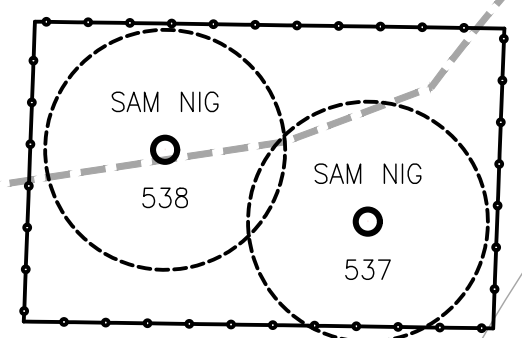
DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS					
YY		MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	SHEET	SR-L-2
DESIGNED BY								SHEET TITLE	TREE DISPOSITION PLAN		19 OF 48
YY								SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
CHECKED BY										DWG. NO.	
JZ				AS BUILT							

Date: July 8, 2022 Z:\SHARED\LOS ANGELES\PRODUCTION\2022\122001\CAD\122001\_SR-L-2.DWG

CITY OF LOS ANGELES  
CITY OF PASADENA

MATCH LINE - SEE SHEET SR-L-4

MATCH LINE - SEE SHEET SR-L-2



ARROYO SECO CHANNEL

**SYMBOLS**

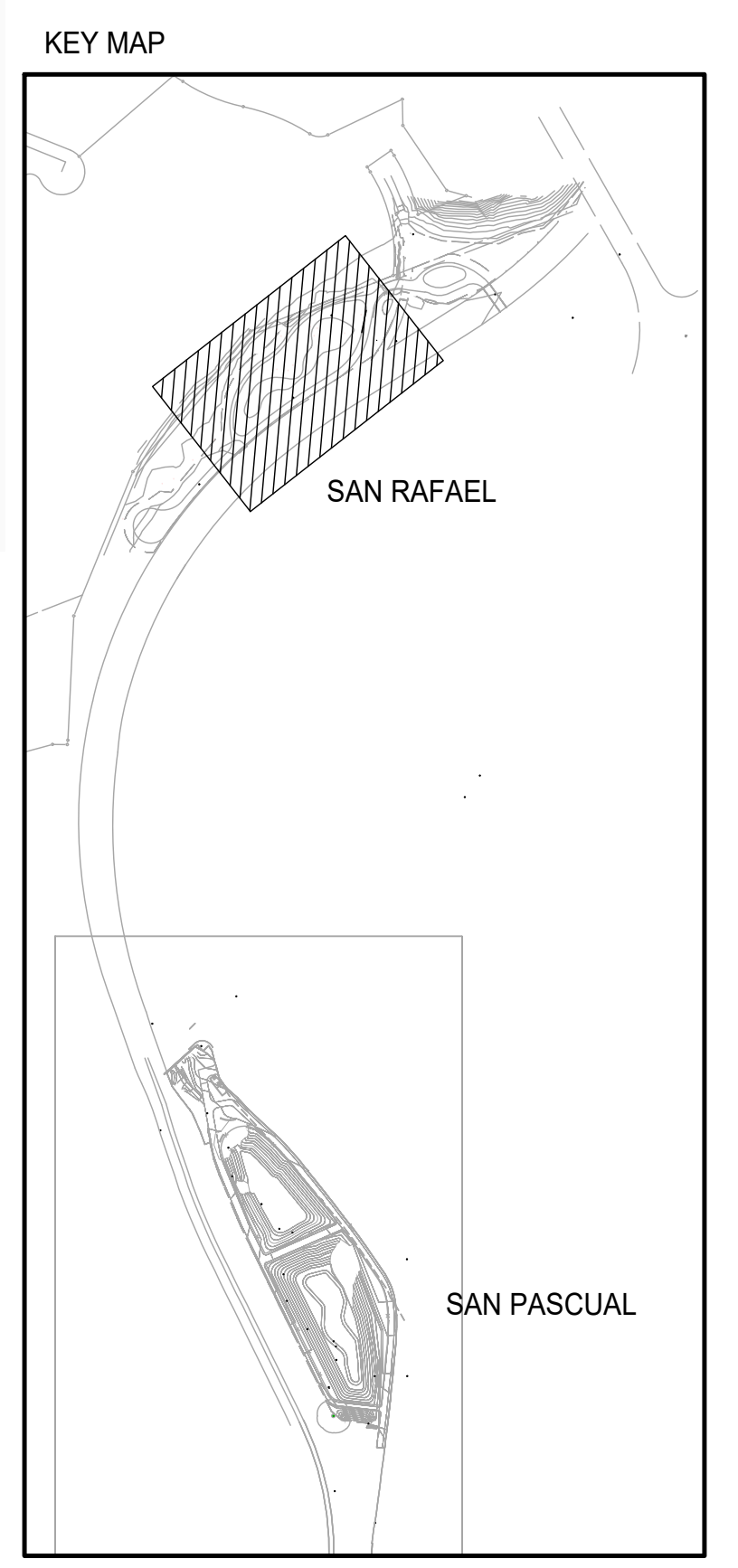
**TREE TO REMOVE:**

xxx xxx — TREE SPECIES  
X — REFER TO TREE DISPOSITION SCHEDULE

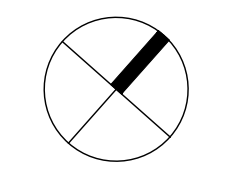
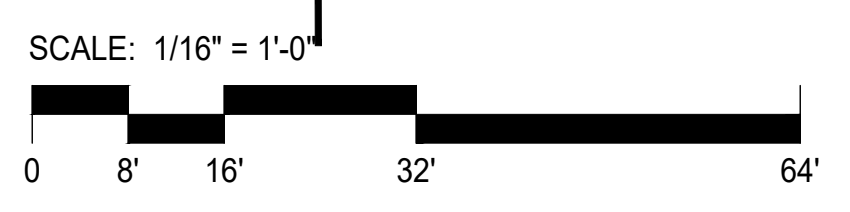
**TREE TO PROTECT IN PLACE:**

xxx xxx — TREE SPECIES  
# — REFER TO TREE DISPOSITION SCHEDULE

— TREE PROTECTION FENCE

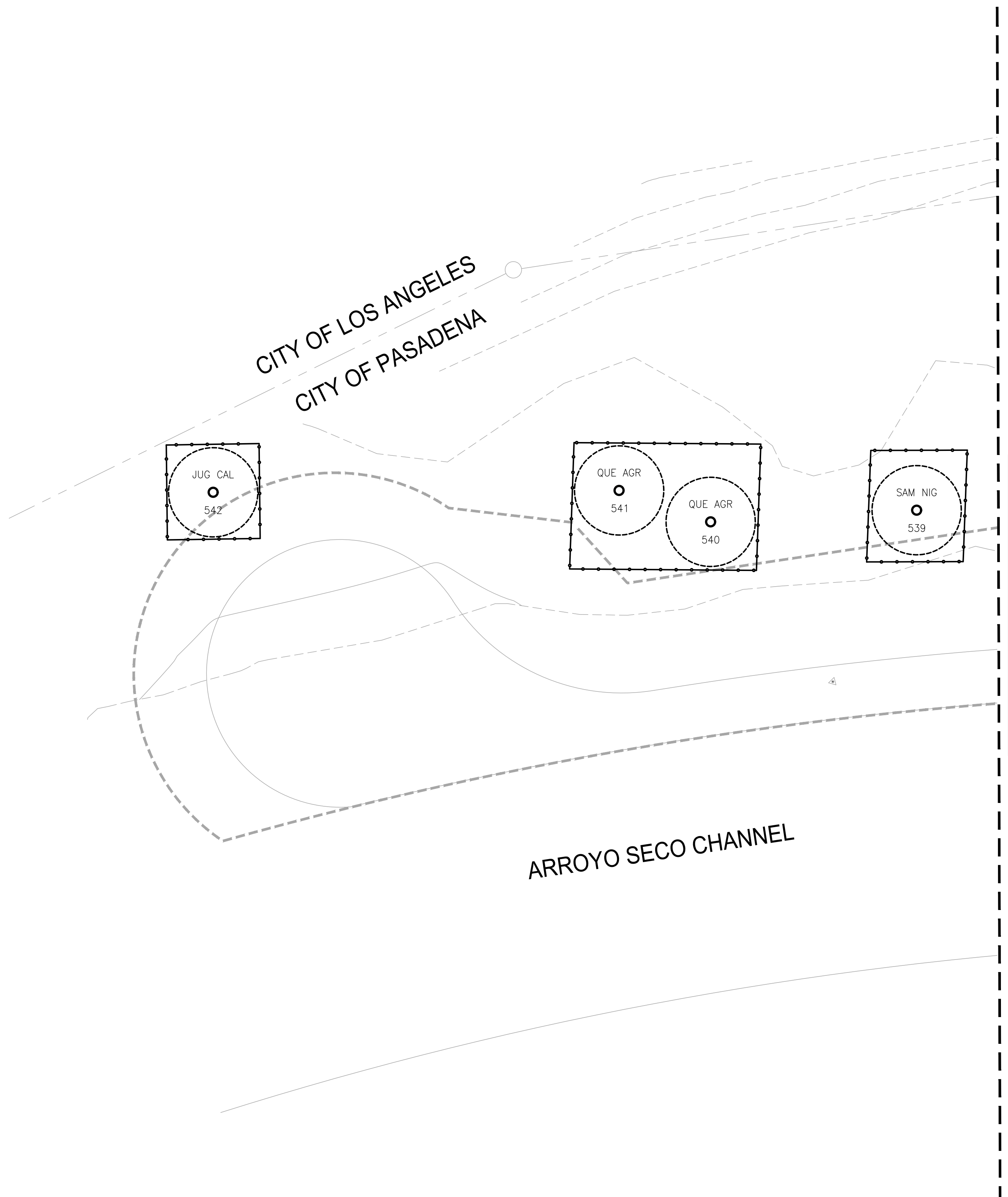


**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024



DRAWN BY YY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY YY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	
CHECKED BY JZ							SHEET TITLE	TREE DISPOSITION PLAN	
			AS BUILT				SCALE	AS SHOWN	ACCOUNT NUMBER XXXXXX
							SHEET	SR-L-3	
								20 OF 48	
							DWG. NO.		

Date: July 8, 2022 Z:\SHARED\LOS ANGELES\PRODUCTION\2022\122001\CAD\122001\_SR-L-2.DWG



**SYMBOLS**

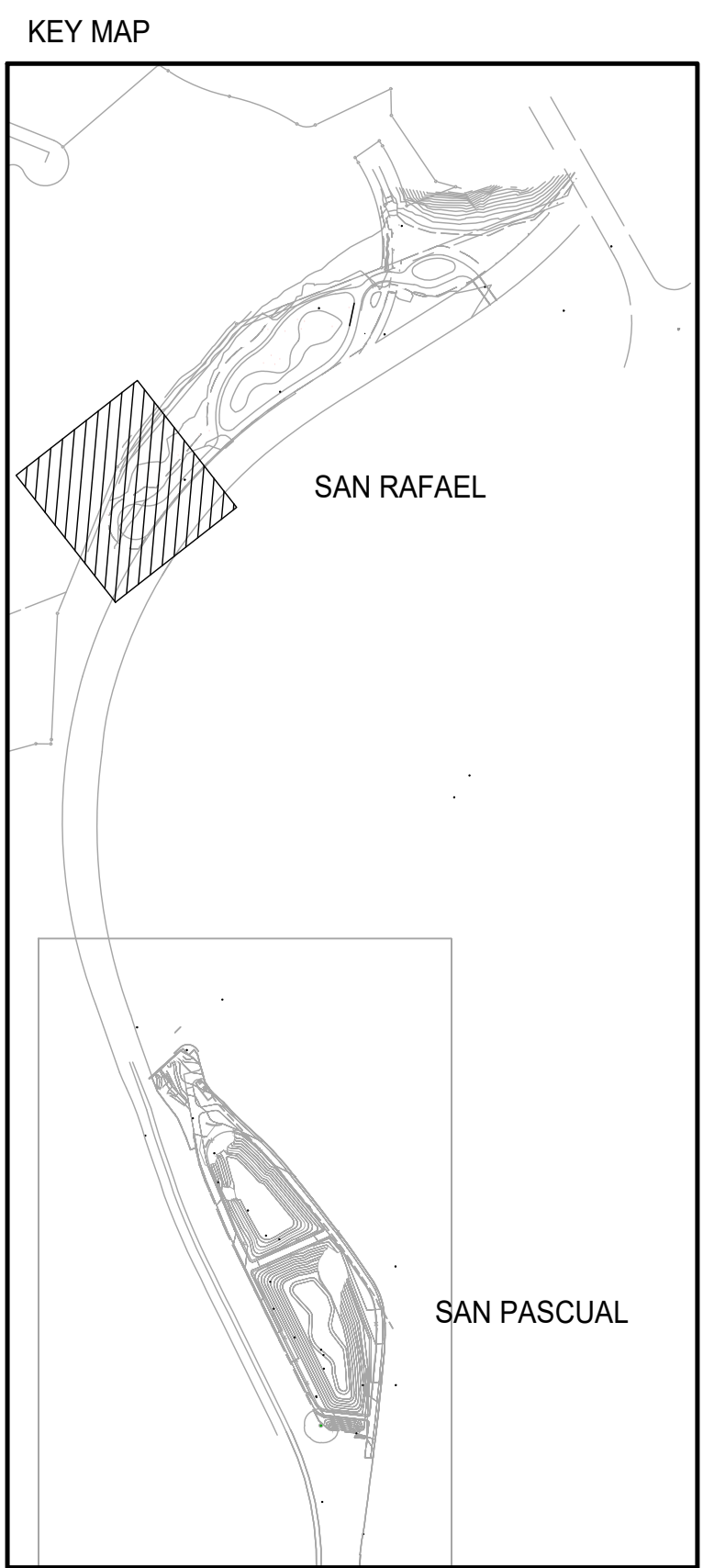
**TREE TO REMOVE:**

xxx xxx — TREE SPECIES  
 X — REFER TO TREE DISPOSITION SCHEDULE

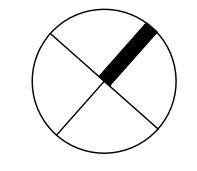
**TREE TO PROTECT IN PLACE:**

xxx xxx — TREE SPECIES  
 o — REFER TO TREE DISPOSITION SCHEDULE

— — — — — TREE PROTECTION FENCE



**PRELIMINARY - NOT FOR CONSTRUCTION**  
 06/03/2024



DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS					
YY		MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	SHEET	SR-L-4
DESIGNED BY								SHEET TITLE	TREE DISPOSITION PLAN		21 OF 48
YY								SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
CHECKED BY										DWG. NO.	
JZ				AS BUILT							

Date: July 8, 2022 Z:\SHARED\LOS ANGELES\PRODUCTION\2022\122001\CAD\122001\_SR-L-2.DWG

**CONSTRUCTION NOTES:**

- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL SERVICE RUNS, SUCH AS WATER SUPPLY, ELECTRICAL (OVERHEAD AND UNDERGROUND), TELEPHONE, SANITARY SEWER, ETC. SHOULD BE ASCERTAINED BEFORE WORK IS STARTED, WHERE THEY WILL BE AFFECTED BY EXCAVATION OR WHERE MACHINES MAY BE WORKING NEARBY, THEY SHOULD BE CAREFULLY SEALED, PROTECTED OR DIVERTED. NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICT WITH PROPOSED IMPROVEMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS INCURRED DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
- WHERE CONFLICTS OCCUR BETWEEN DRAWINGS AND ACTUAL FIELD CONDITION, NOTIFY OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
- PRIOR TO INSTALLATION OF ANY PAVING, REFER TO PROJECT'S GEOTECHNICAL REPORT. REPORT DISCREPANCIES BETWEEN GEOTECHNICAL REPORT'S RECOMMENDATIONS AND INFORMATION NOTED IN THE PAVING SCHEDULE, PAVING DETAILS OR PAVING SPECIFICATIONS BEFORE PROCEEDING WITH THE WORK.
- CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGE TO EXISTING CONDITIONS TO REMAIN (ON- OR OFF-SITE) RESULTING FROM OR RELATED TO THE WORK OF THIS PROJECT.
- ALL WORK SHALL COMPLY WITH APPLICABLE CODES, STATUTES AND ORDINANCES.
- COORDINATE CONDUIT, SLEEVES AND EMBEDMENTS PRIOR TO ANY HARDSCAPE CONSTRUCTION.
- DIMENSIONS ARE FROM FACE OF, OR OUTSIDE OF PAVING, WALLS, ETC., UNLESS OTHERWISE NOTED.
- LOCATIONS OF FEATURES NOT SPECIFICALLY DIMENSIONED MAY BE DETERMINED BY SCALE. CONTACT OWNER'S REPRESENTATIVE WHERE CONFLICT OCCURS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALING OF DRAWINGS.
- PAVING MOCK-UPS ARE REQUIRED FOR ALL PAVING ON THIS PROJECT. REFER TO PAVING SCHEDULE, PAVING DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- OBTAIN APPROVAL OF OWNER'S REPRESENTATIVE FOR ALL FORMS PRIOR TO PLACING CONCRETE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO PROTECT PERSONNEL AND ADJACENT PROPERTY DURING CONSTRUCTION. THE CONTRACTOR SHALL ADEQUATELY BRACE ELEMENTS OF THE STRUCTURE DURING CONSTRUCTION TO ENSURE THE SAFETY OF THE SITE AND/OR STRUCTURES.
- THERE SHALL BE NO DEVIATIONS FROM STRUCTURAL DETAILS WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
- NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED, BORED OR OTHERWISE WEAKENED, EXCEPT AS ALLOWED BY THE UNIFORM BUILDING CODE.
- CONTRACTOR SHALL SUBMIT COPIES OF ALL SHOP DRAWINGS TO OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION OF RELATED WORK, AND ALLOW AMPLE TIME FOR OWNER'S REPRESENTATIVE'S REVIEW AND COORDINATION.
- TRANSITIONS FROM EXISTING PAVING TO NEW PAVING SHALL BE FLUSH.
- INSTALL EXPANSION JOINTS AS SHOWN ON PLANS AND WHEREVER PAVING ABUTS ANY VERTICAL SURFACE.
- INSTALL CONCRETE THAT OBTAINS A MINIMUM COMPRESSIVE STRENGTH OF 4,000 P. S. I. AT 28 DAYS UNLESS OTHERWISE SPECIFIED. SUBMIT SAMPLE TO OWNER'S REPRESENTATIVE PRIOR TO LAYING OUT FORMS. INSTALL CONCRETE FLATWORK PER RECOMMENDATIONS OF GEOTECHNICAL REPORTS. IN CASE OF CONFLICT BETWEEN SOILS REPORT AND DETAILS, THE MOST STRINGENT REQUIREMENTS WILL APPLY.
- ALL PATHWAYS SHALL HAVE A MAXIMUM SLOPE OF 5% IN THE DIRECTION OF TRAVEL AND A MAXIMUM CROSS-SLOPE OF 2%.

**LANDSCAPE CONSTRUCTION SCHEDULE:**

KEY	ITEM / DESCRIPTION	COLOR / SRI	FINISH	SUPPLIER	COMMENTS
L-01	DECOMPOSED GRANITE STABILIZED-PEDESTRIAN	SUNSET GOLD	N/A	SOUTHWEST BOULDER AND STONE "760-328-5877"	SEE DETAIL 1/SR-L-9
L-02	DECOMPOSED GRANITE STABILIZED-VEHICULAR	SUNSET GOLD	N/A	SOUTHWEST BOULDER AND STONE "760-328-5877"	SEE DETAIL 1/SR-L-9

**WALL, FENCE & RAILING CONSTRUCTION SCHEDULE:**

KEY	ITEM / DESCRIPTION	COLOR / SRI	FINISH	SUPPLIER	COMMENTS
W-01	TWO RAIL POST AND RAIL CEDAR FENCE	NATURAL	N/A	N/A	SEE DETAIL 3/SR-L-9
W-02	CONCRETE RETAINING EDGE	NATURAL	BROOM	N/A	SEE DETAIL 3/SR-L-9

**SITE AMENITY SCHEDULE:**

KEY	ITEM / DESCRIPTION	COLOR / SRI	FINISH	SUPPLIER	COMMENTS
A-01	INFORMATIONAL SIGN	CORTEN STEEL	NATURAL	N/A	SEE DETAIL 6/SR-L-9
A-02	RECLAIMED WOOD LOG BENCH	NATURAL	N/A	ANGEL CITY LUMBER "213-373-1651"	SEE DETAIL 4/SR-L-9
A-03	SMALL BOULDER 3' X 1.5'	CAMERON SURFACE BOULDERS	N/A	SOUTHWEST BOULDER AND STONE "760-328-5877"	SEE DETAIL 5/SR-L-9
A-04	MEDIUM BOULDER 3'-4' X 2'-3'	CAMERON SURFACE BOULDERS	N/A	SOUTHWEST BOULDER AND STONE "760-328-5877"	SEE DETAIL 5/SR-L-9
A-05	LARGE BOULDER 4'-5' X 3'	CAMERON SURFACE BOULDERS	N/A	SOUTHWEST BOULDER AND STONE "760-328-5877"	SEE DETAIL 5/SR-L-9
A-06	COBBLESTONE 3"-5"	SIERRA COBBLE	N/A	SOUTHWEST BOULDER AND STONE "760-328-5877"	N/A

**PRELIMINARY - NOT FOR CONSTRUCTION**

06/03/2024

DRAWN BY		REVISIONS					CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				
YY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SR-L-5
YY							SHEET TITLE	CONSTRUCTION SCHEDULE AND NOTES		22	OF 48
JZ			AS BUILT				SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.

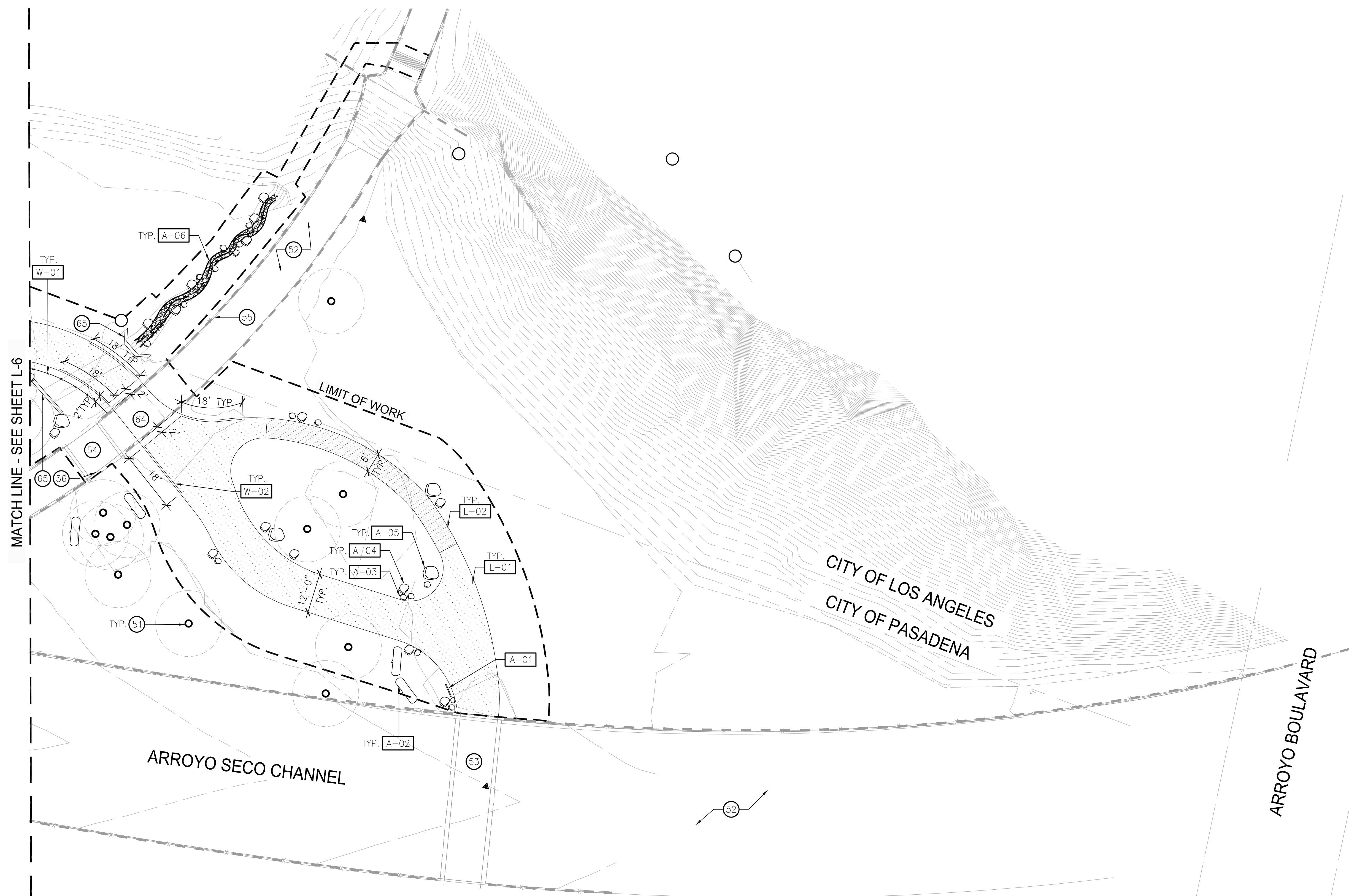
**CONSTRUCTION KEYNOTES:**

EXISTING REFERENCES:

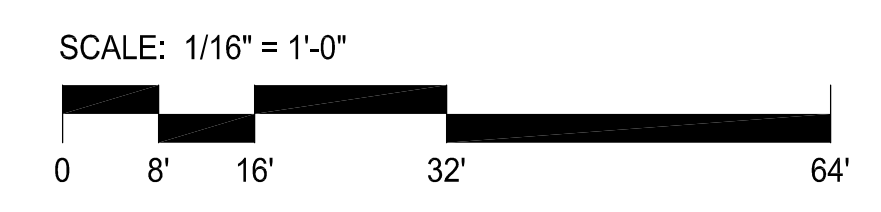
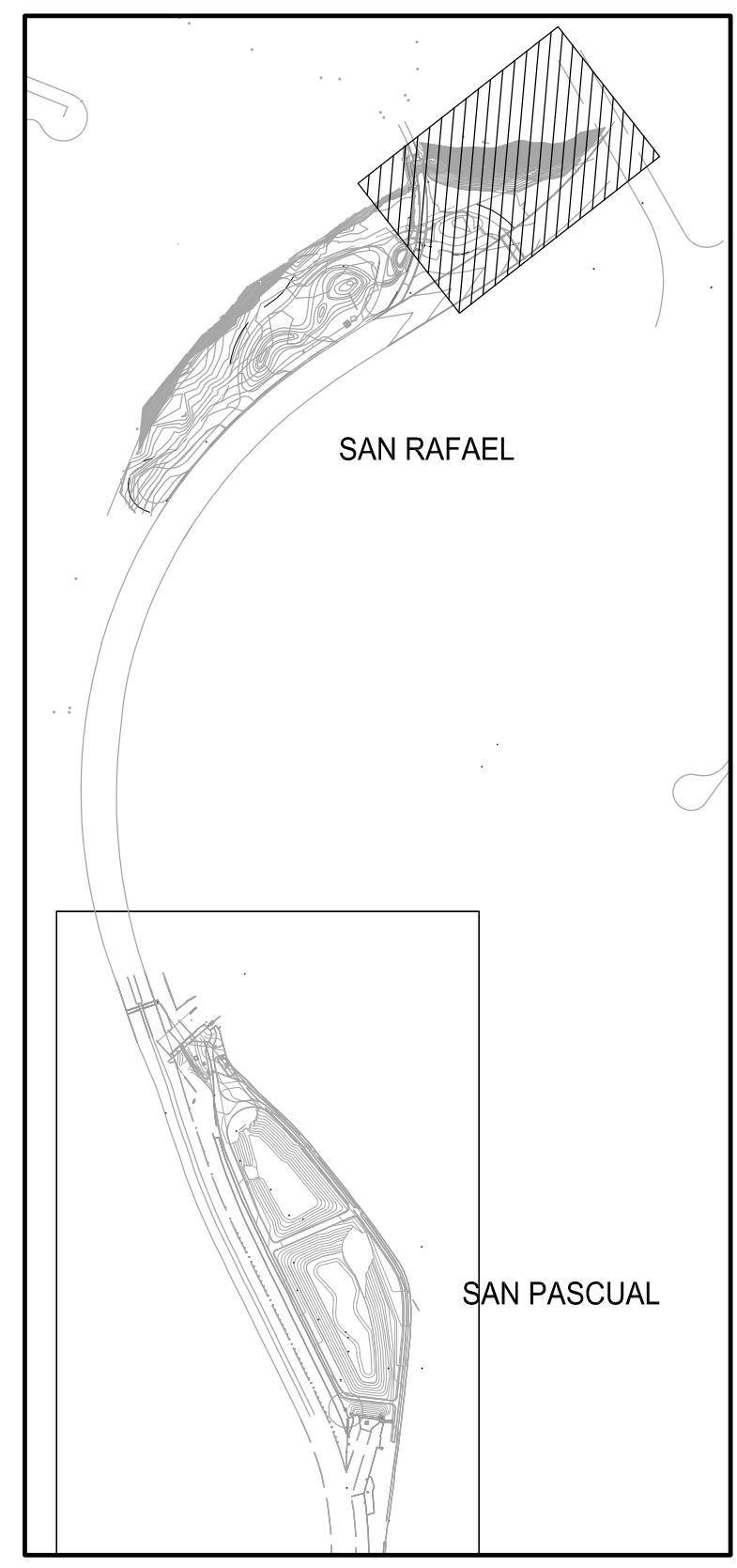
- 51. TREE TO REMAIN.
- 52. CONCRETE CHANNEL.
- 53. PEDESTRIAN BRIDGE.
- 54. BRIDGE DECK.
- 55. CHAIN LINK FENCE.
- 56. GATE.
- 57. DIRECTIONAL SIGN.

CIVIL REFERENCES:

- 63. MANHOLE/UNDERGROUND UTILITY.
- 64. CONCRETE CHANNEL COVER.
- 65. HEADWALL.



**KEY MAP**



**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

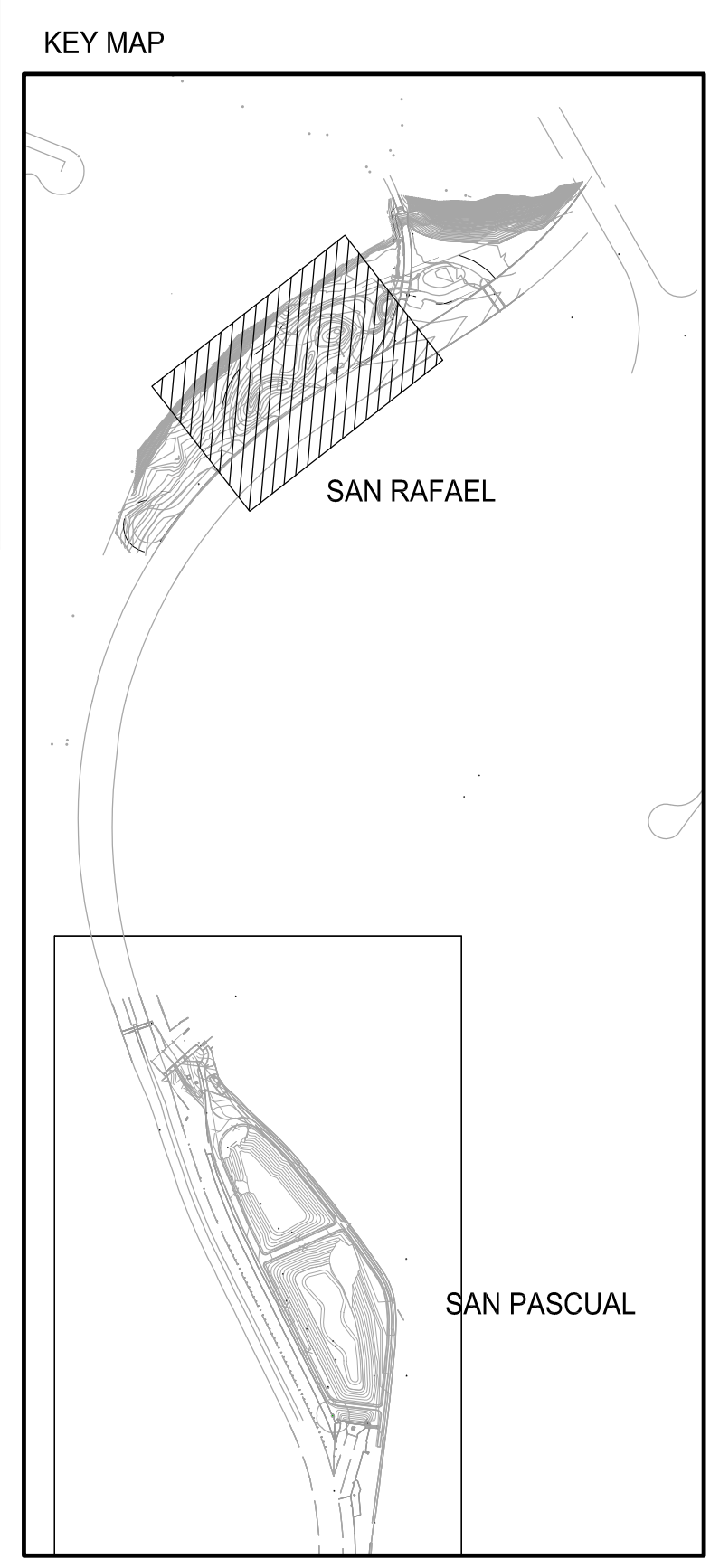
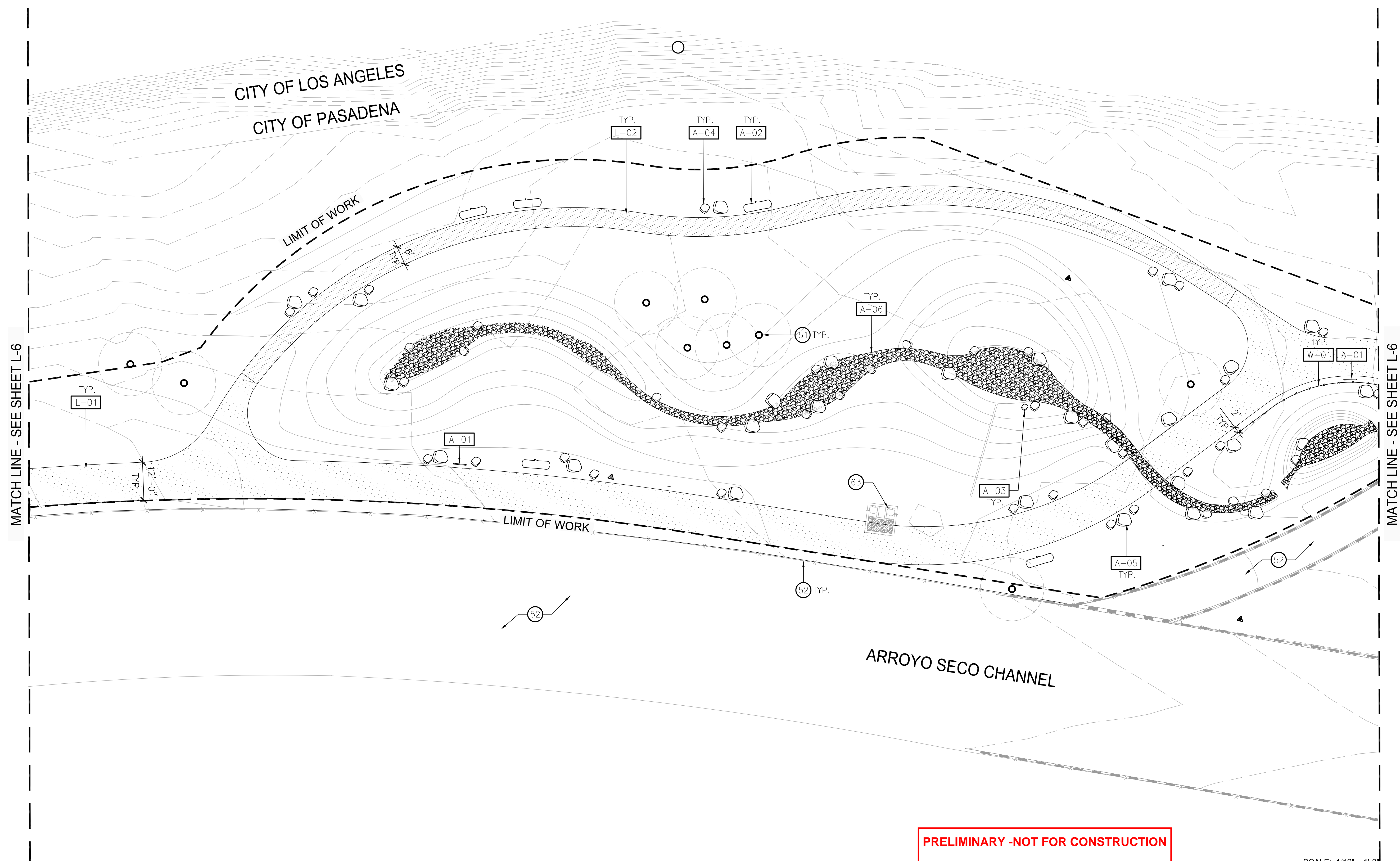
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YY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET	NO.
YY							SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	23	OF 48
YY							CONSTRUCTION PLAN		
JZ			AS BUILT				SCALE AS SHOWN	ACCOUNT NUMBER	XXXXXX
								DWG. NO.	

Date: July 8, 2022 Z:\SHARED\LOS ANGELES\PRODUCTION\2022\122001\CAD\122001\_SR\_L-6.DWG

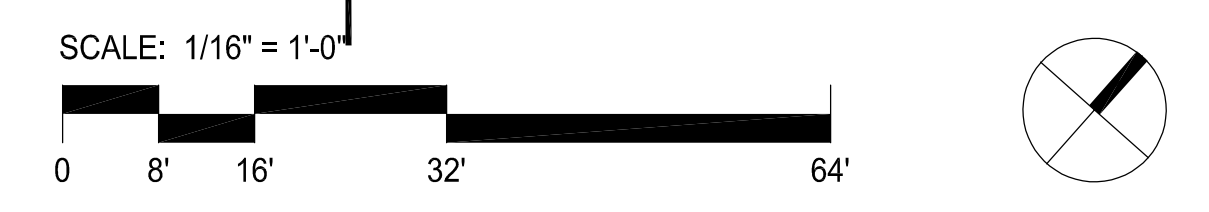


**CONSTRUCTION KEYNOTES:**

- EXISTING REFERENCES:  
 51. TREE TO REMAIN.  
 52. CONCRETE CHANNEL.  
 53. PEDESTRIAN BRIDGE.  
 54. BRIDGE DECK.  
 55. CHAIN LINK FENCE.  
 56. GATE.  
 57. DIRECTIONAL SIGN.
- CIVIL REFERENCES:  
 63. MANHOLE/UNDERGROUND UTILITY.  
 64. CONCRETE CHANNEL COVER.  
 65. HEADWALL.



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06/03/2024



DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS					
YY		MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	SHEET	SR-L-7
DESIGNED BY	YY							SHEET TITLE	CONSTRUCTION PLAN	24	OF 48
CHECKED BY	JZ			AS BUILT				SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
										DWG. NO.	

Date: July 8, 2022 Z:\SHARED\LOS ANGELES\PRODUCTION\2022\122001\CAD\122001\_SR\_L-6.DWG

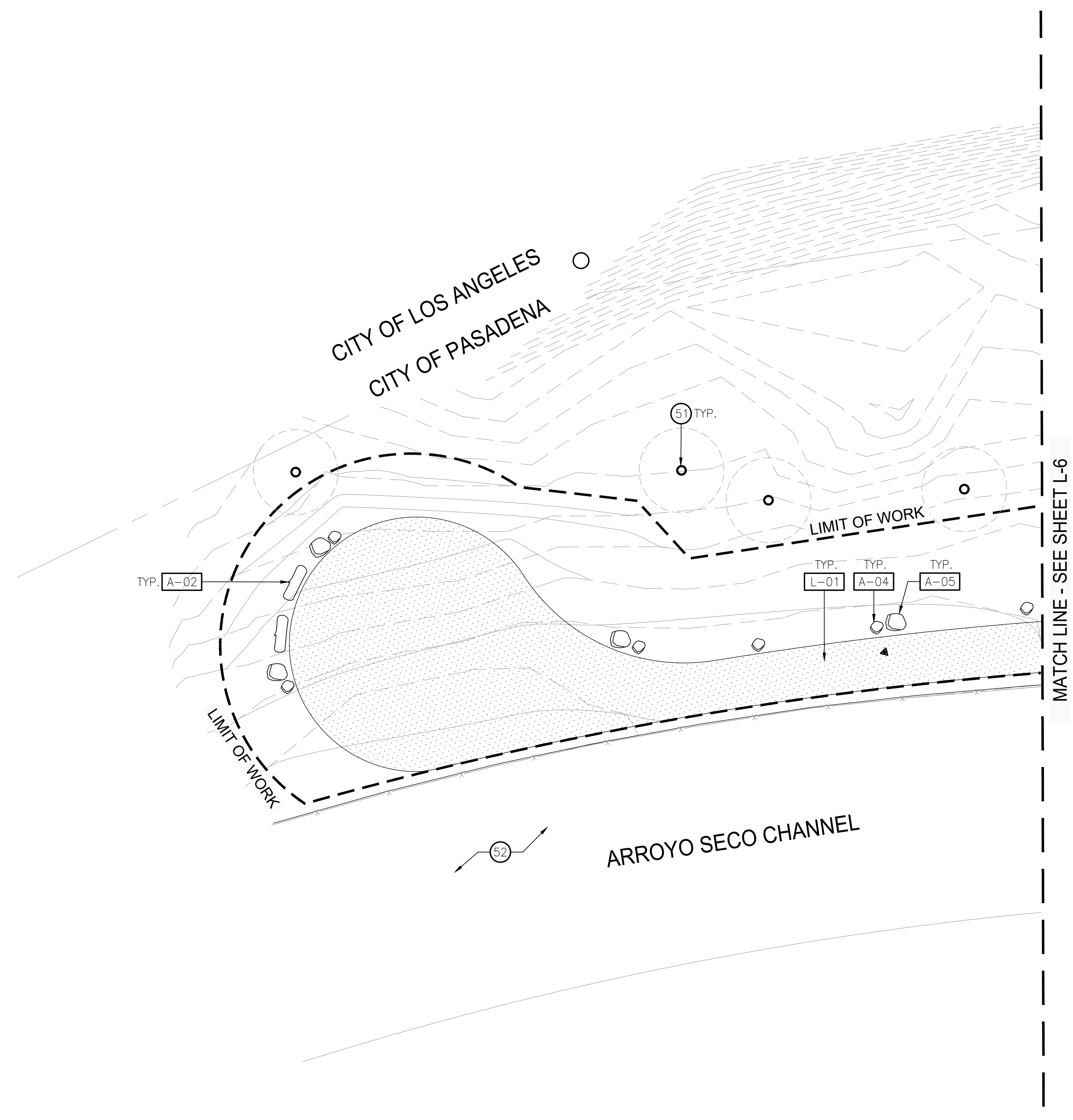
**CONSTRUCTION KEYNOTES:**

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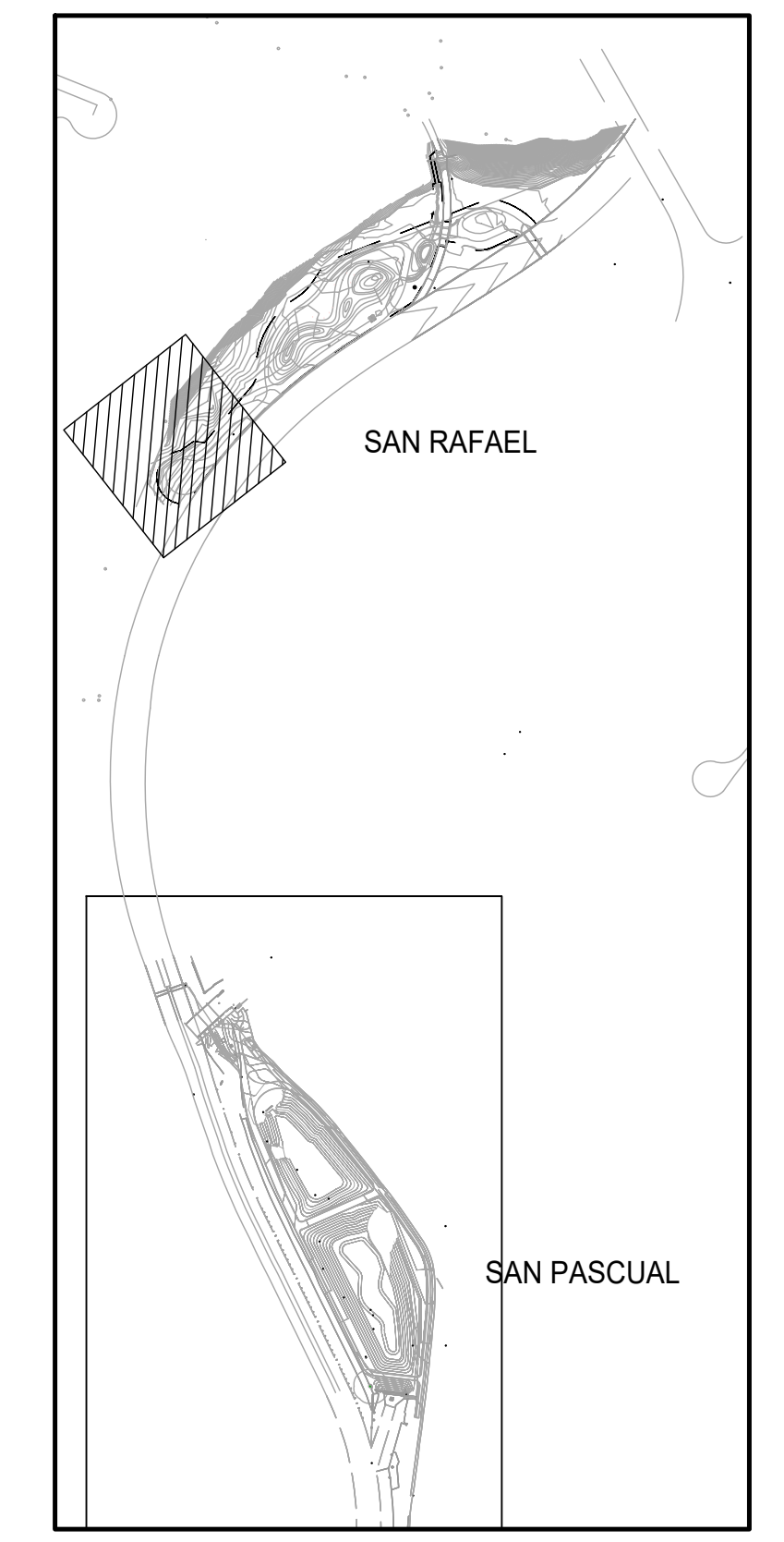
- 51. TREE TO REMAIN.
- 52. CONCRETE CHANNEL.
- 53. PEDESTRIAN BRIDGE.
- 54. BRIDGE DECK.
- 55. CHAIN LINK FENCE.
- 56. GATE.
- 57. DIRECTIONAL SIGN.

CIVIL REFERENCES:

- 63. MANHOLE/UNDERGROUND UTILITY.
- 64. CONCRETE CHANNEL COVER.
- 65. HEADWALL.



**KEY MAP**

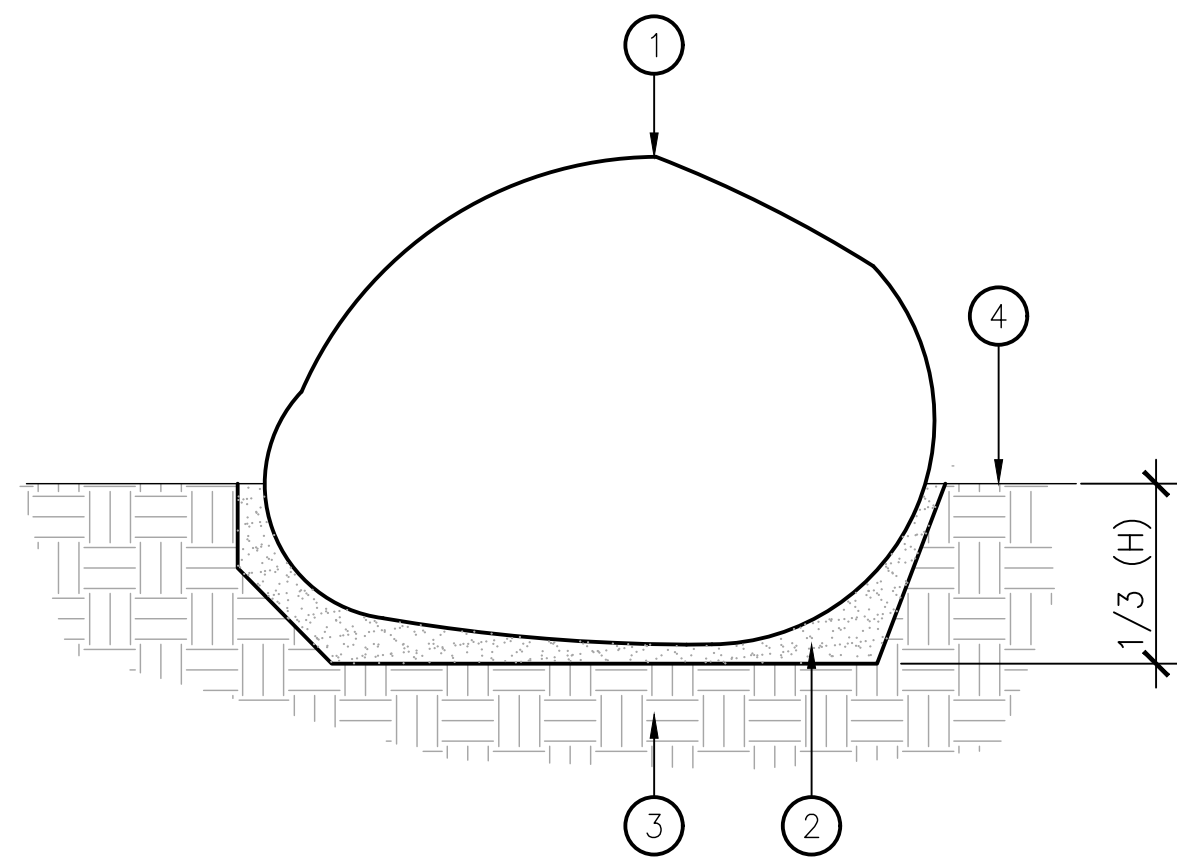


**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024



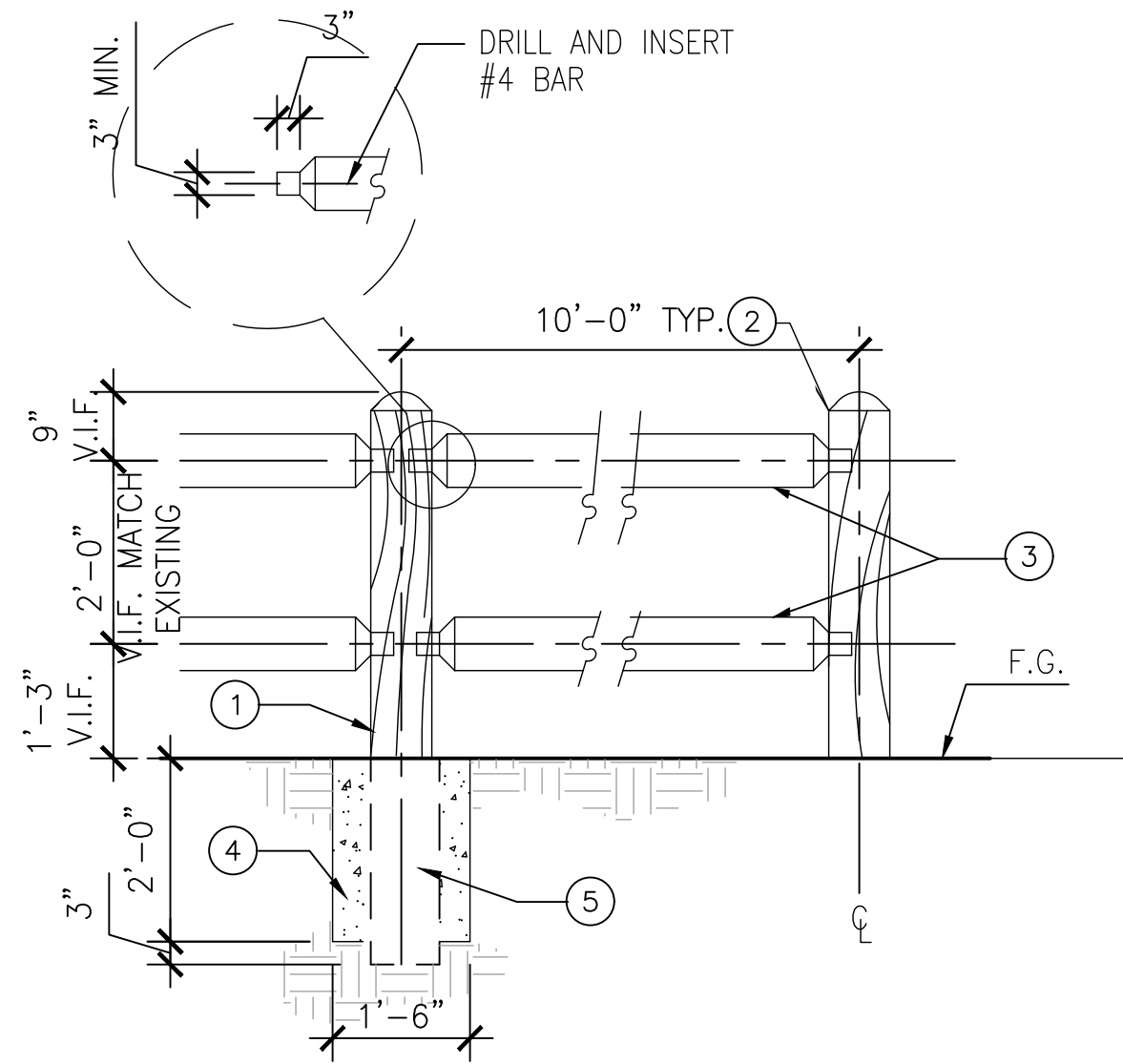
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YY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET	SR-L-8
							SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	25	OF 48
DESIGNED BY							SHEET TITLE	CONSTRUCTION PLAN	
							SCALE	AS SHOWN	ACCOUNT NUMBER
CHECKED BY									XXXXXX
JZ			AS BUILT						DWG. NO.

Date: July 8, 2022 Z:\SHARED\LOS ANGELES\PRODUCTION\2022\122001\CAD\122001\_SR\_L-6.DWG



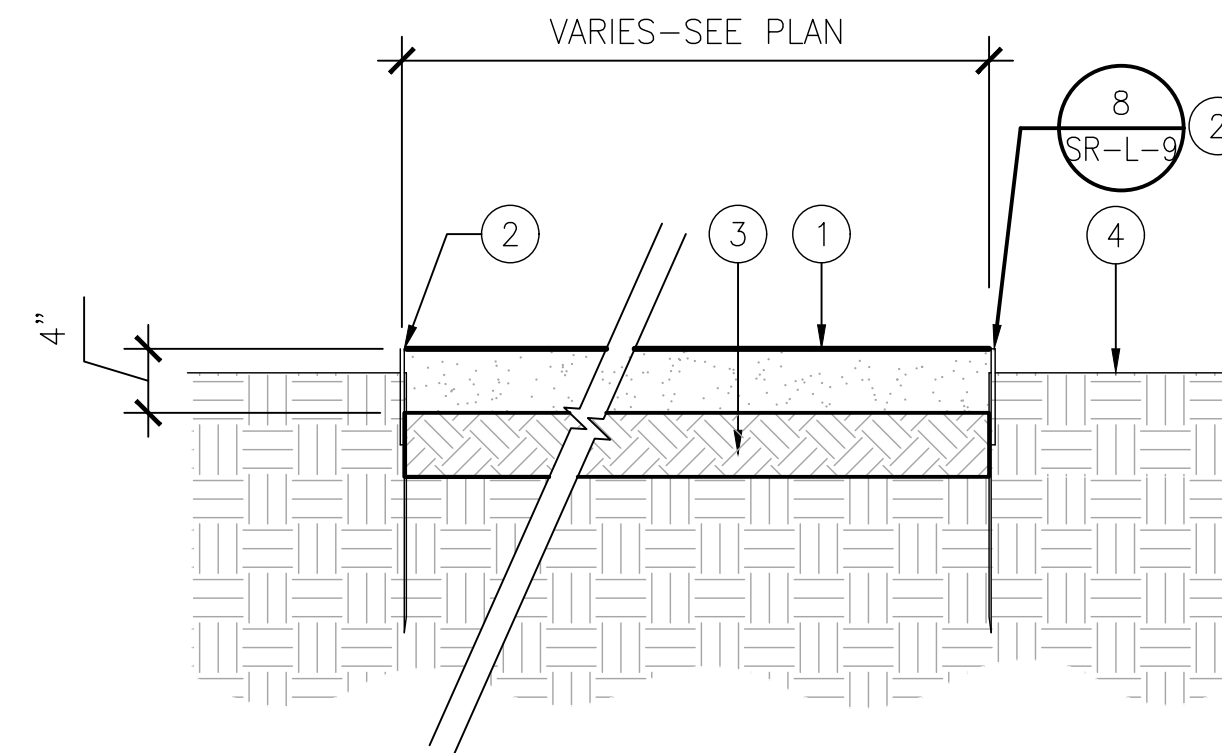
- LEGEND**
1. BOULDER.
  2. 3" MIN. SAND SETTING BED.
  3. COMPACTED SUBGRADE TO 90% PER GEOTECH. REPORT.
  4. PLANTING AREA.

**7 BOULDER INSTALLATION [A-03, A-04, A-05]**  
SCALE: NTS



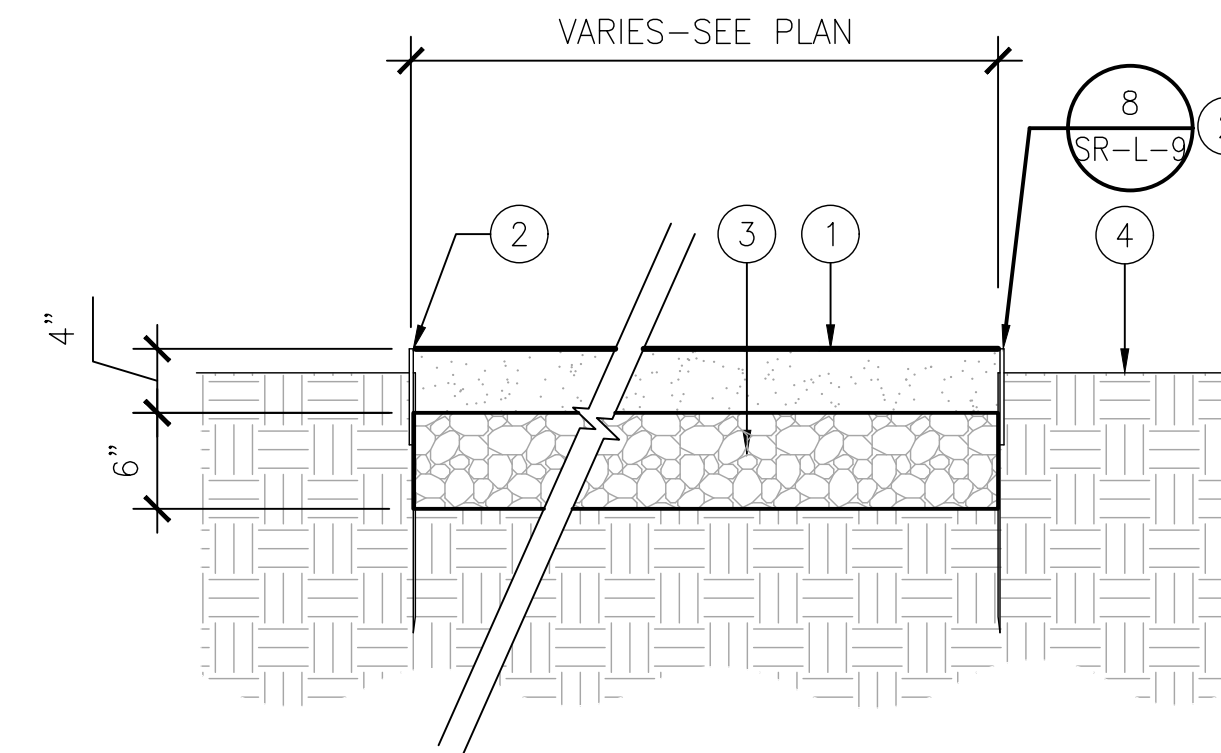
- LEGEND**
1. 7 1/2" DIA. X 6' TALL DOMED POST CORED TO ACCEPT RAILS.
  2. 3" ROUNDED TOP, TYP.
  3. (2) 4 1/2" DIA X 10' LONG. LODGEPOLE PINE RAILS.
  4. CONCRETE FOOTING.
  5. POST TREATED W/COPPER STANDARD FINISH NAPHENATE OR PENTA SOLUTION, TYP.

**5 POST AND RAIL FENCE [W-01]**  
SCALE: 1/2" = 1'-0"



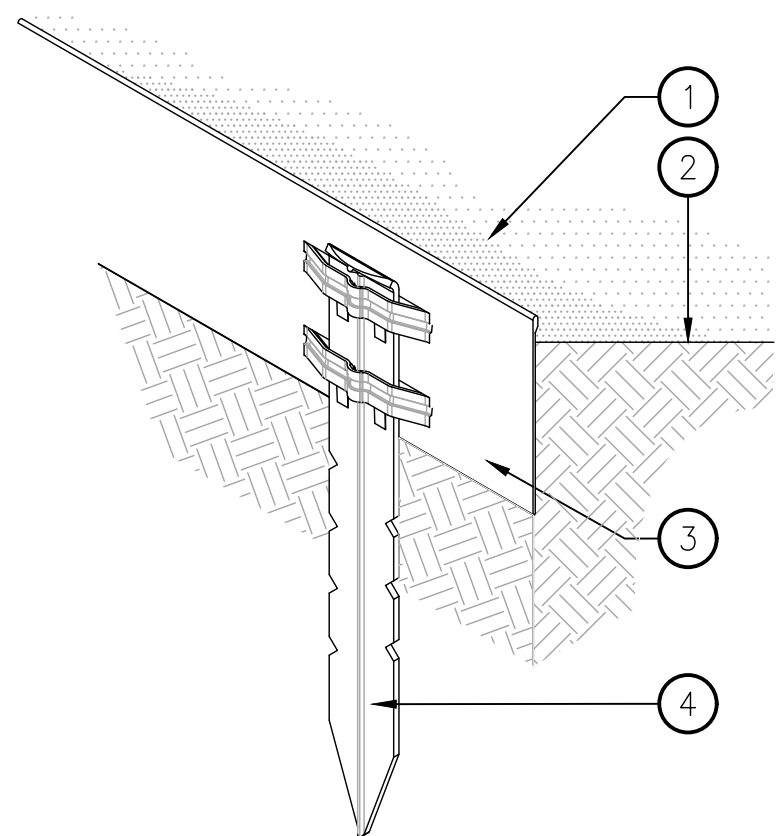
- LEGEND**
1. STABILIZED D.G. SURFACE.
  2. STEEL EDGING.
  3. 90% COMPACTED SUBGRADE PER GEOTECH. REPORT.
  4. PLANTING AREA.

**3 DECOMPOSED GRANITE SURFACE-PEDESTRIAN**  
SCALE: 1" = 1'-0"



- LEGEND**
1. STABILIZED D.G. SURFACE.
  2. STEEL EDGING.
  3. CLASS II AGGREGATE BASE.
  4. PLANTING AREA.

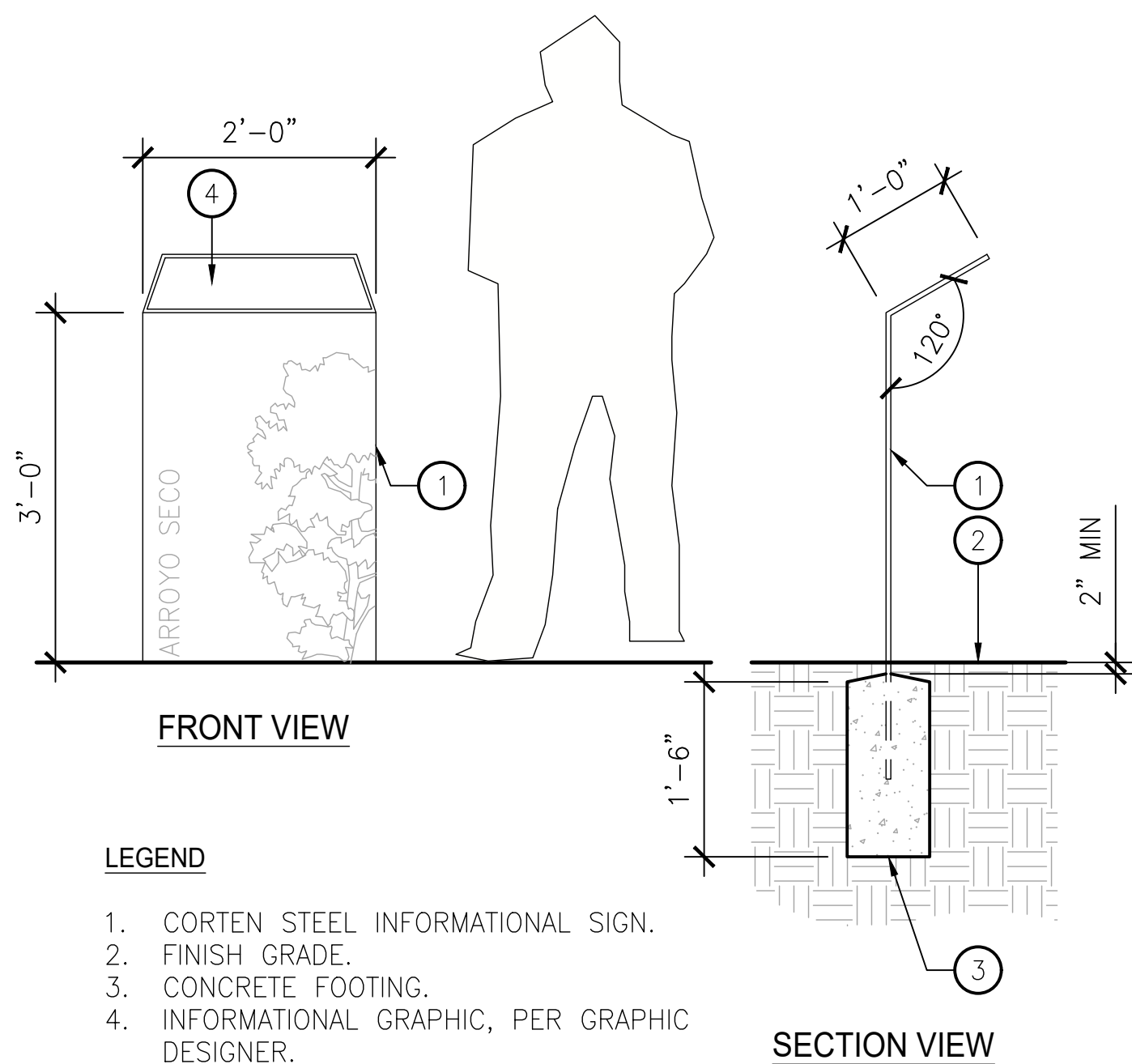
**1 DECOMPOSED GRANITE SURFACE-VEHICULAR**  
SCALE: 1" = 1'-0"



- LEGEND**
1. DECOMPOSED GRANITE.
  2. FINISH GRADE.
  3. MTL. EDGING. SEE SPEC FOR THICKNESS AND DIMS.
  4. MTL. STAKE. SECURE STAKE 1/2" BELOW TOP OF EDGING.

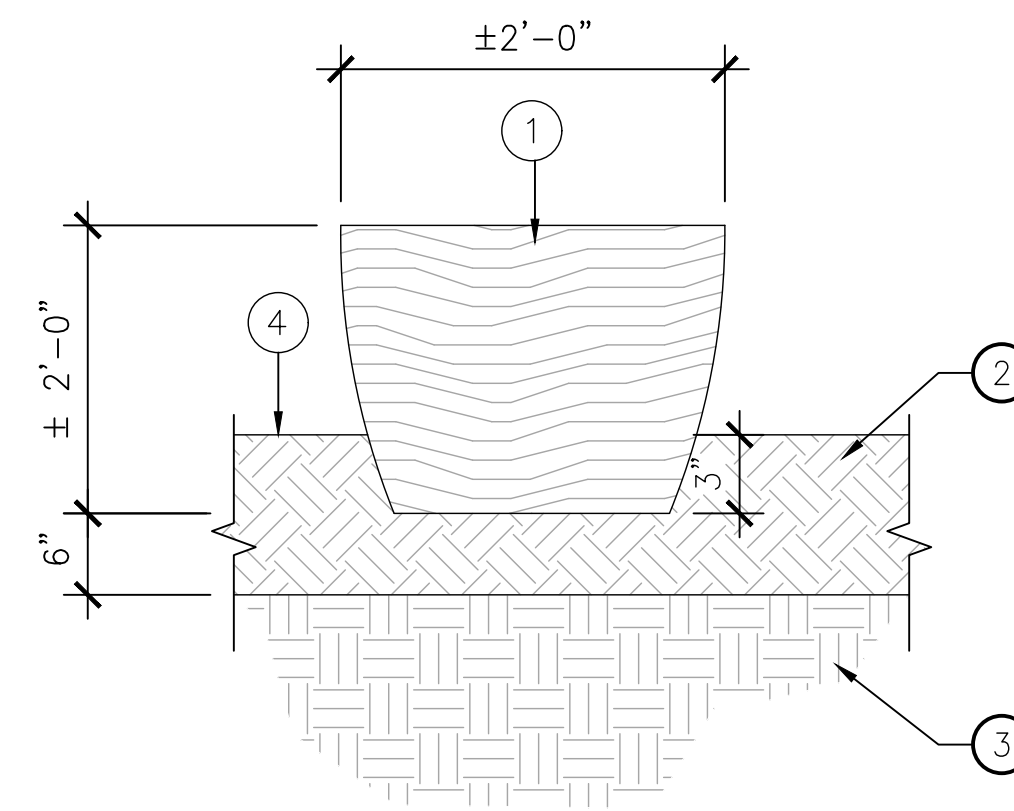
- NOTES**
- SECURE STAKE INSIDE GRAVEL, GROUND COVER, OR D.G.
  - EDGING TO BE NO MORE THAN 1/2" ABOVE F.G.
  - COMPACT GRADE ADJ. TO EDGING TO PREVENT SETTLING.

**8 METAL EDGING**  
SCALE: N.T.S. 32 90 00 Metal Edging.dwg



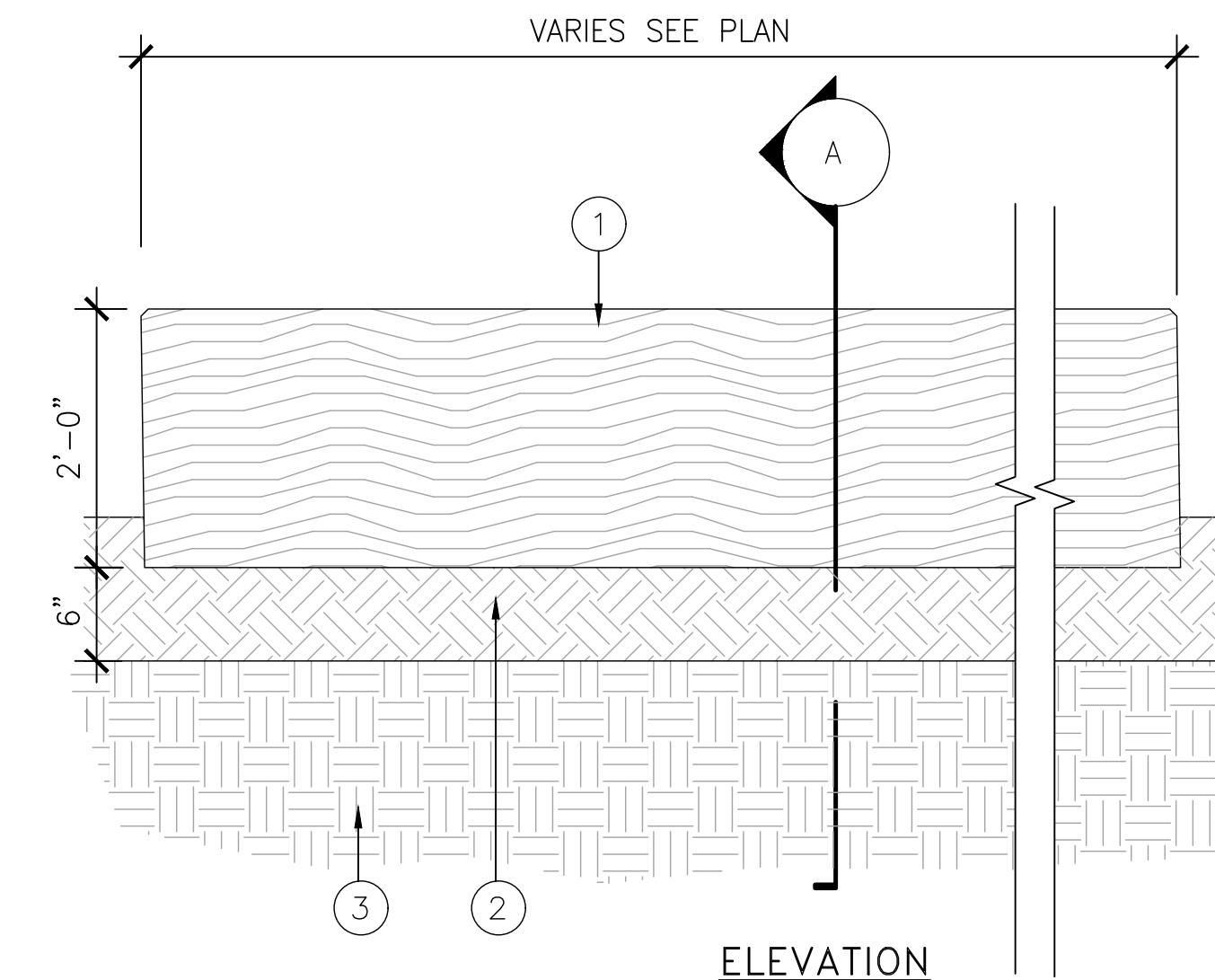
- LEGEND**
1. CORTEN STEEL INFORMATIONAL SIGN.
  2. FINISH GRADE.
  3. CONCRETE FOOTING.
  4. INFORMATIONAL GRAPHIC, PER GRAPHIC DESIGNER.

**6 INFORMATIONAL SIGN [A-01]**  
SCALE: 3/4" = 1'-0"



- LEGEND**
1. RECLAIMED LOG BENCH.
  2. COMP. SUBGRADE PER GEOTECH REPORT.
  3. SITE SOIL.
  4. FINISH GRADE.

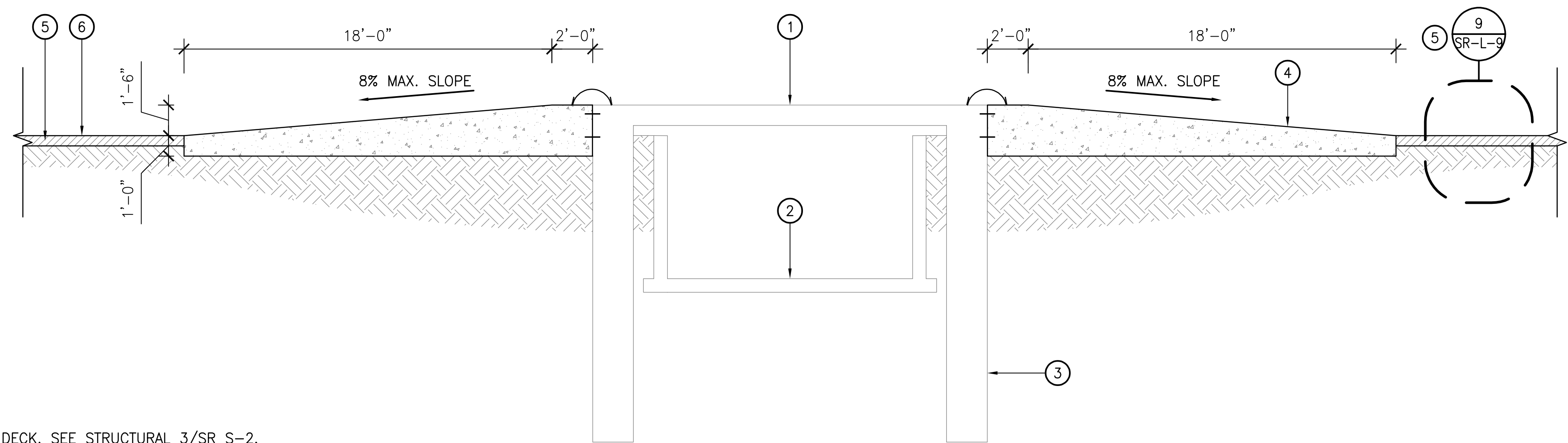
**4 RECLAIMED WOOD LOG BENCH [A-02]**  
SCALE: 1" = 1'-0"



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06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
YY		MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET
YY								SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	SR-L-9
YY								CONSTRUCTION DETAILS	26 OF 48
JZ				AS BUILT				SCALE AS SHOWN	DWG. NO.
								ACCOUNT NUMBER XXXXXX	

Date: July 8, 2022 Z:\SHARED\LOS ANGELES\PRODUCTION\2024\22001\CAD\22001\_SR-L-9.DWG



**LEGEND**

- 1. BRIDGE DECK, SEE STRUCTURAL 3/SR S-2.
- 2. EXISTING CHANNEL.
- 3. PILE PER STRUCTURAL.
- 4. CONCRETE RETAINING WALL.
- 5. METAL EDGING.
- 6. FINISH GRADE, DG SURFACE.

**5 CONCRETE RETAINING EDGE [W-02]**  
SCALE: 1/4" = 1'-0"

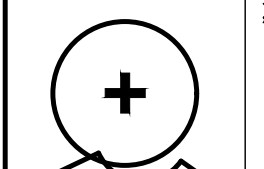
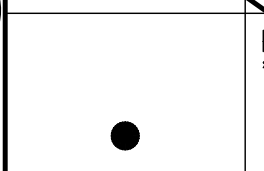
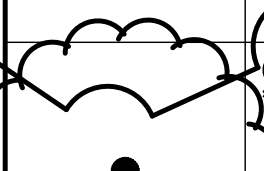
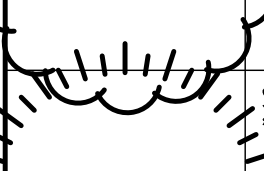
**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

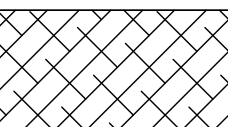
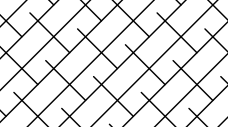
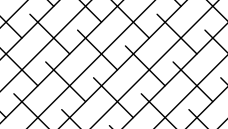
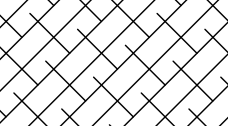
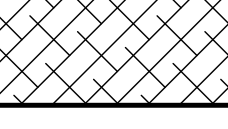
DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY	CHECKED BY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET
YY	JZ			AS BUILT				SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	SR-L-10
								SHEET TITLE	CONSTRUCTION DETAILS
								SCALE	AS SHOWN
								ACCOUNT NUMBER	XXXXXX
								DWG. NO.	27 OF 48

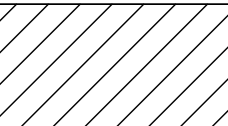
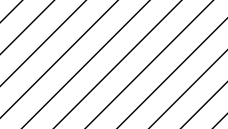
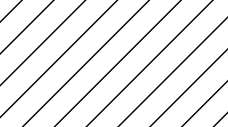
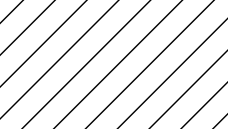
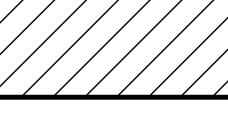
**PLANTING NOTES:**

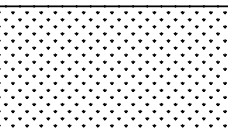
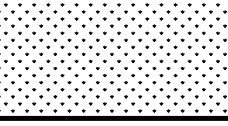
1. THE PLANTING PLAN IS DIAGRAMMATIC. ALL PLANT LOCATIONS ARE APPROXIMATE. ON CENTER SPACING AND SYMBOLS TAKE PRECEDENCE OVER PLANT QUANTITIES SPECIFIED. QUANTITIES, IF SHOWN ON THE PLANTING PLAN ARE APPROXIMATE AND ARE FOR REFERENCE ONLY. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF DISCREPANCIES BETWEEN QUANTITIES AND THE SYMBOLS SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL PLANT COUNTS AND SQUARE FOOTAGES.
2. TREE LOCATION MAY BE ADJUSTED TO AVOID CONFLICTS WITH UNDERGROUND UTILITIES. CONSULT WITH OWNER'S REPRESENTATIVE PRIOR TO ADJUSTMENT OF TREE LOCATIONS, ESPECIALLY THOSE ARRANGED ON A SPECIFIED MODULE OR IN A GRID PATTERN.
3. CONTRACTOR SHALL ACCOMPANY THE PROJECT AGRONOMIST TO THE SITE FOR THE PURPOSE OF TAKING SOIL SAMPLES, CONDUCTING PERCOLATION TESTS, AND REVIEWING EXISTING SITE CONDITIONS. THE QUANTITY OF SAMPLES ARE NOTED IN THE SPECIFICATIONS. SUBMIT SOIL TEST RESULTS AND RECOMMENDATIONS TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO SOIL PREPARATION. THIS REQUIREMENT APPLIES TO ALL SOILS AND CONDITIONS WITHIN THIS PROJECT. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO THE START OF CONSTRUCTION, FOR CLARIFICATION.
5. CONTRACTOR SHALL GIVE NOTICE OF PLANTING (3) BUSINESS DAYS PRIOR TO INSTALLATION. CONTRACTOR SHALL LAY OUT PLANT MATERIAL PRIOR TO INSTALLATION FOR OWNER'S REPRESENTATIVE'S REVIEW AND APPROVAL.
  - a. CENTERPOINTS OF TREES SHOULD BE STAKED WITH GRADE LATH STAKES. CONTAINER SIZE AND PLANT NAME SHALL BE NOTED ON EACH STAKE.
  - b. SHRUBS SHALL BE PLACED IN THEIR "FINAL" LOCATIONS.
  - c. OWNER'S REPRESENTATIVE HAS THE RIGHT TO ADJUST PLANT LOCATIONS AND SPACING UPON REVIEWING IN THE FIELD.
  - d. ALL PLANTED AREAS SHALL BE WEED FREE PRIOR TO PLANTING.
6. IF CONFLICTS ARISE BETWEEN ACTUAL SIZE OF PLANTING AREAS ON-SITE AND THOSE AREAS INDICATED ON DRAWINGS, CONTACT OWNER'S AUTHORIZED REPRESENTATIVE FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO OWNER'S AUTHORIZED REPRESENTATIVE IN A TIMELY FASHION MAY RESULT IN CONTRACTOR'S OWN LIABILITY TO RELOCATE PLANT MATERIALS.
7. REFER TO PLANTING DETAILS FOR ALL INSTALLATION AND STAKING REQUIREMENTS.
8. INSTALL TREES WITHIN 3' OF PAVEMENT OR STRUCTURES WITH ROOT CONTROL BARRIERS. UNLESS OTHERWISE SPECIFIED, A 12' LONG X 2' DEEP LINEAR BARRIER SHALL BE INSTALLED AT EDGE OF PAVEMENT/STRUCTURE, WITH LENGTH CENTERED AT THE TREE TRUNK.
9. NURSERY STAKES SHALL BE REMOVED AFTER PLANTING TREES AND STAKING OR GUYING AS SHOWN ON PLANS AND AS DIRECTED BY OWNER'S REPRESENTATIVE.
10. CONTRACTOR IS RESPONSIBLE FOR PRUNING TREES AS DIRECTED BY OWNER'S REPRESENTATIVE. NO PRUNING IS TO BE DONE UNLESS DIRECTED.
11. TRIANGULAR SPACE GROUNDCOVERS AND SHRUBS, UNLESS OTHERWISE INDICATED ON DRAWINGS.
12. SEE DETAIL FOR PLACEMENT OF SHRUBS IN IRREGULARLY SHAPED PLANTING AREAS.
13. MULCH ALL AREAS (EXCEPT TURF, SLOPES 2:1 AND GREATER, ROOTED CUTTINGS, AND AS NOTED ON PLANS) WITH 3" LAYER OF SPECIFIED MATERIAL.
14. ALL SLOPES 2:1 OR GREATER SHALL BE STABILIZED WITH JUTE MESH PRIOR TO PLANTING. DO NOT INSTALL JUTE MESH ON SEEDED SLOPES.

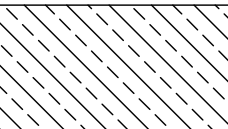


15. WHERE GROUNDCOVER IS SHOWN ON PLANS: GROUNDCOVER PLANTING CONTINUES UNDER SHRUBS AND TREES AT SPECIFIED SPACING. DO NOT PLANT GROUNDCOVER IN SHRUB/TREE WATERING BASINS.
16. CONTRACTOR SHALL MAINTAIN ALL PLANTING FOR A PERIOD OF NINETY (90) DAYS AFTER COMPLETION AND ACCEPTANCE BY OWNER'S REPRESENTATIVE, UNLESS OTHERWISE NOTED IN SPECIFICATIONS. ALL AREAS SHOULD BE KEPT CLEAN, WATERED AND WEED-FREE.
17. PRIOR TO END OF MAINTENANCE PERIOD, LANDSCAPE CONTRACTOR SHALL CONTACT OWNER AND ARRANGE A FINAL WALKTHROUGH INSPECTION BY OWNER'S REPRESENTATIVE. OWNER MUST ACCEPT ALL MAINTAINED AREAS IN WRITING PRIOR TO END OF MAINTENANCE PERIOD. OWNER SHALL BE RESPONSIBLE FOR FUTURE MAINTENANCE AFTER THE MAINTENANCE PERIOD AND FINAL WALK THROUGH.

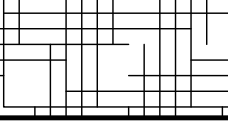
TREE LEGEND:					
SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	SALIX LASIOLEPSIS "ARROYO WILLOW"	15 GAL 3'x4'	HIGH	X X	5 /SR-L-14
	PLATANUS RACEMOSA "WESTERN SYCAMORE"	15 GAL 5'x2.5'	MODERATE	X X	5 /SR-L-14
	QUERCUS AGRIFOLIA "COAST LIVE OAK"	15 GAL 4'x3'	LOW	X X	5 /SR-L-14
	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	15 GAL 4'x3'	LOW	X X	5 /SR-L-14

SHRUB & GROUNDCOVER LEGEND: CHAPARRAL					
SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	RHUS INTEGRIFOLIA "LEMONADE BERRY"	5 GAL 18" X 12"	LOW	30" O.C. 15% OF TOTAL.	1, 2 /SR-L-14
	KECKIELLA CORDIFOLIA "CLIMBING PENSTEMON"	1 GAL 10" X 8"	LOW	48" O.C. 15% OF TOTAL.	1, 2 /SR-L-14
	ARCTOSTAPHYLOS GLAUCA 'LOS ANGELES' "LOS ANGELES BIG BERRY MANZANITA"	1 GAL 10" X 8"	LOW	60" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	SALVIA MELLIFERA "BLACK SAGE"	LINER 6" X 4"	LOW	48" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	HETEROMELES ARBUTIFOLIA "TOYON"	5 GAL 18" X 12"	LOW	48" O.C. 20% OF TOTAL.	1, 2 /SR-L-14

SHRUB & GROUNDCOVER LEGEND: COASTAL SAGE SRUB					
SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	ENCELIA CALIFORNICA "CALIFORNIA BRITTLEBUSH"	LINER 6" X 4"	LOW	36" O.C. 15% OF TOTAL.	1, 2 /SR-L-14
	SALVIA APIANA "WHITE SAGE"	1 GAL 8" X 8"	LOW	36" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	ERIOGONUM FASCICULATUM "CALIFORNIA BUCKWHEAT"	1 GAL 8" X 10"	VERY LOW	36" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	SALVIA MELLIFERA "BLACK SAGE"	LINER 6" X 4"	LOW	36" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	ROSA CALIFORNICA "WILD ROSE"	1 GAL 8" X 8"	LOW	48" O.C. 10% OF TOTAL.	1, 2 /SR-L-14

SHRUB & GROUNDCOVER LEGEND: RIPARIAN HERBACEOUS LAYER					
SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	ERYTHRANTHE GUTTATA "CREEK MONKEY FLOWER"	LINER 4" X 4"	UNKOWN	18" O.C. 30% OF TOTAL.	1, 2 /SR-L-14
	SCHOENOPLECTUS CALIFORNICUS "CALIFORNIA BULRUSH"	LINER 6" X 4"	UNKOWN	24" O.C. 70% OF TOTAL.	1, 2 /SR-L-14

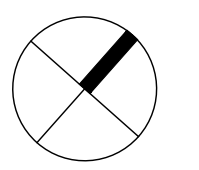
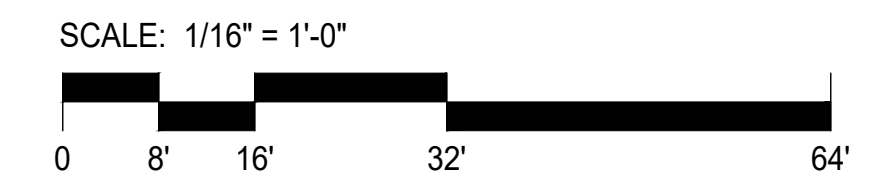
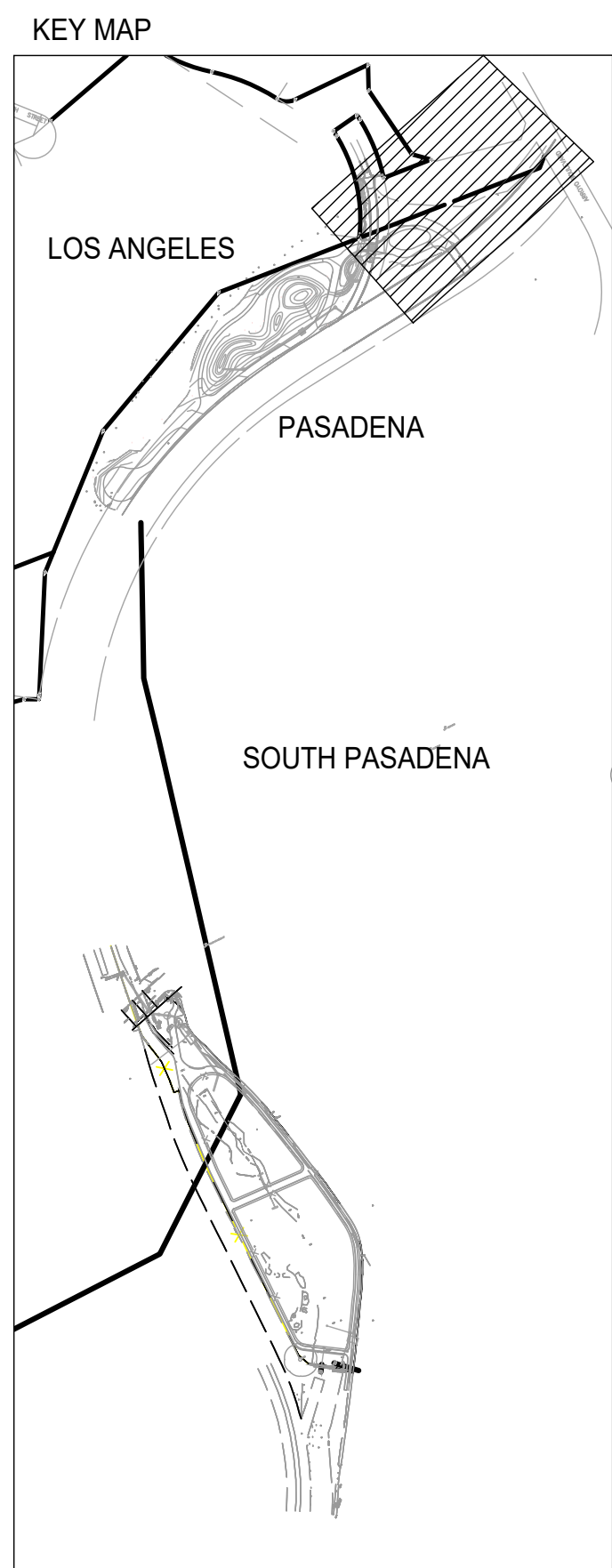
SHRUB & GROUNDCOVER: MULEFAT SCRUB					
SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	ACMISPON GLABER "DEERWEED"	1 GAL 6" X 6"	VERY LOW	30" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	ENCELIA CALIFORNICA "CALIFORNIA BRITTLEBUSH"	LINER 6" X 4"	LOW	36" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	BACCHARIS SALICIFOLIA "MULEFAT"	1 GAL 10" X 8"	MODERATE	36" O.C. 50% OF TOTAL.	1, 2 /SR-L-14

SHRUB & GROUNDCOVER: HYDROSEED					
SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	ACMISPON GLABER "DEERWEED"	SEED	MODERATE	-	1, 2 /SR-L-14

**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
YY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET	
DESIGNED BY							SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	SR-L-11	
YY							SHEET TITLE	28 OF 48	
CHECKED BY							PLANTING LEGEND	DWG. NO.	
JZ			AS BUILT				SCALE AS SHOWN	ACCOUNT NUMBER	XXXXXX

MATCH LINE - SEE SHEET L-10



**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

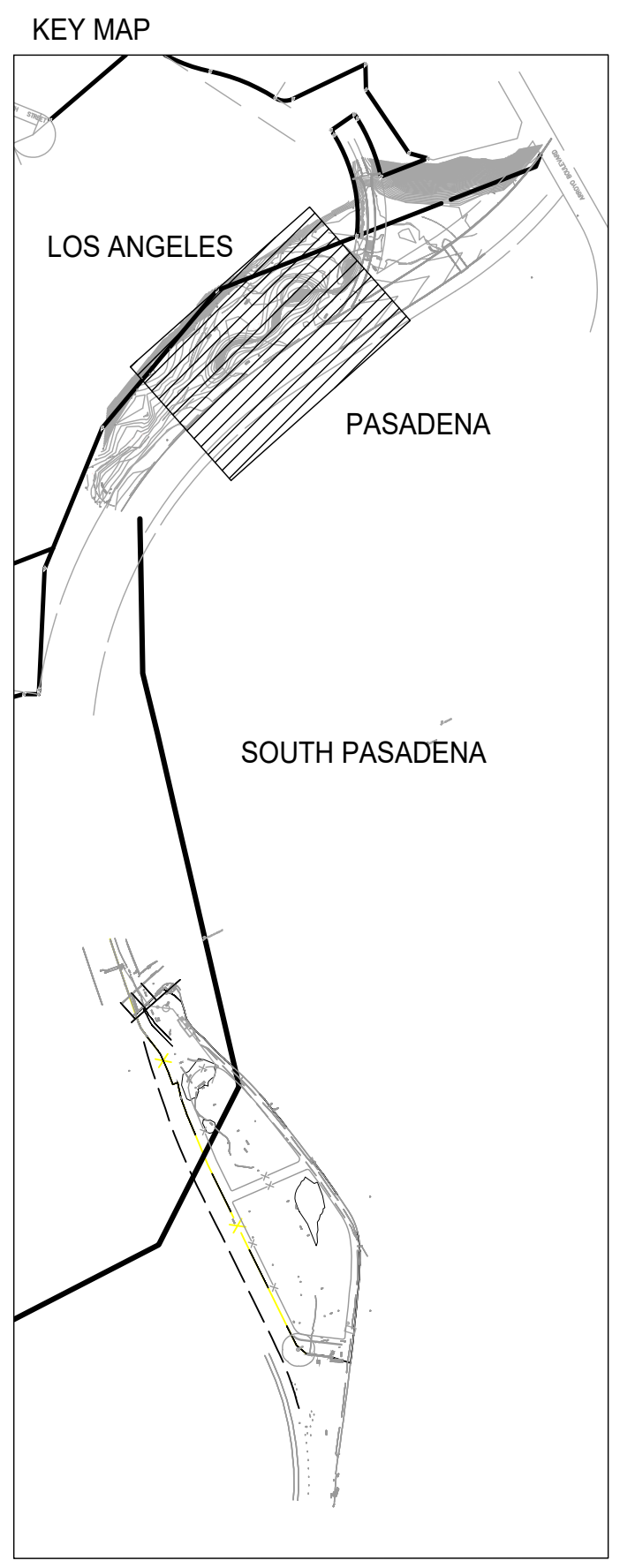
DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
YY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET	NO.
YY							SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	29	48
YY							SHEET TITLE	PLANTING PLAN	OF
JZ			AS BUILT				SCALE	AS SHOWN	DWG. NO.
							ACCOUNT NUMBER	XXXXXX	

Date: July 8, 2022 Z:\SHARED\LOS ANGELES\PRODUCTION\2022\122001\CAD\122001\_SR\_L-11.DWG

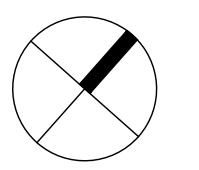
CITY OF LOS ANGELES  
CITY OF PASADENA

MATCH LINE - SEE SHEET L-10

MATCH LINE - SEE SHEET L-10

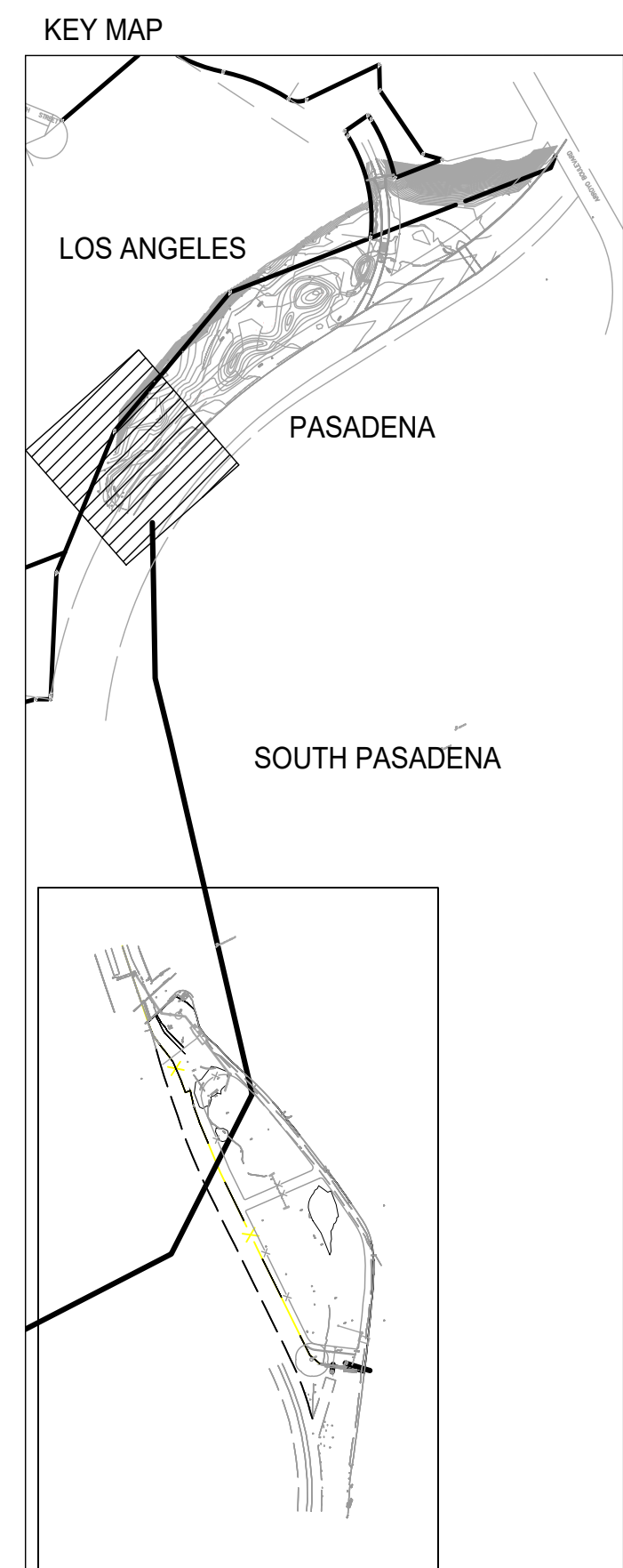
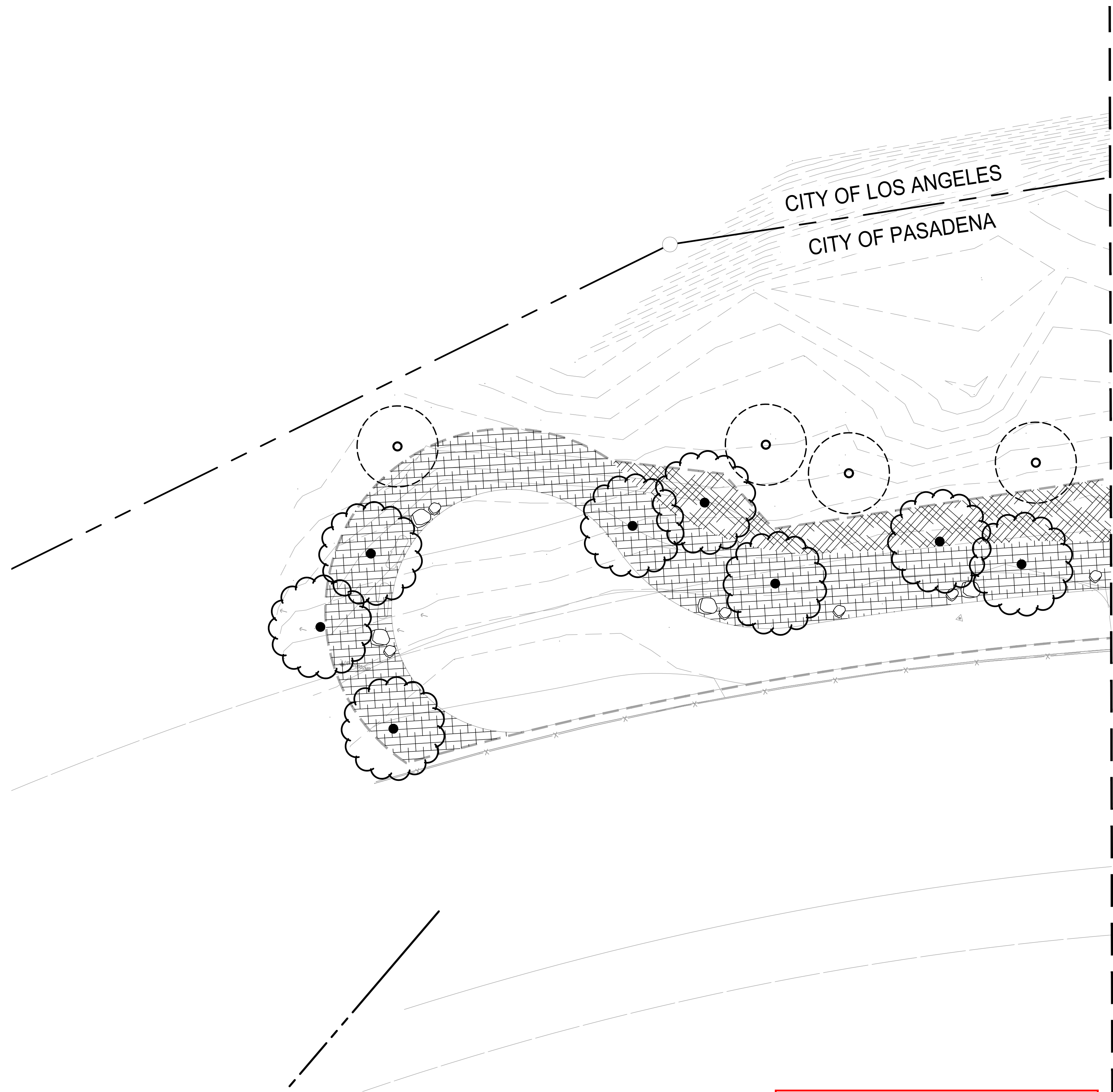


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06/03/2024

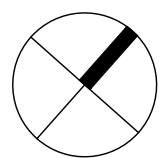
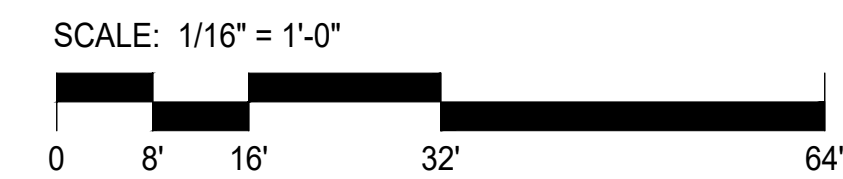


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YY							SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	SR-L-13	
YY							SHEET TITLE	PLANTING PLAN	30 OF 48
JZ			AS BUILT				SCALE	AS SHOWN	DWG. NO.
							ACCOUNT NUMBER	XXXXXX	

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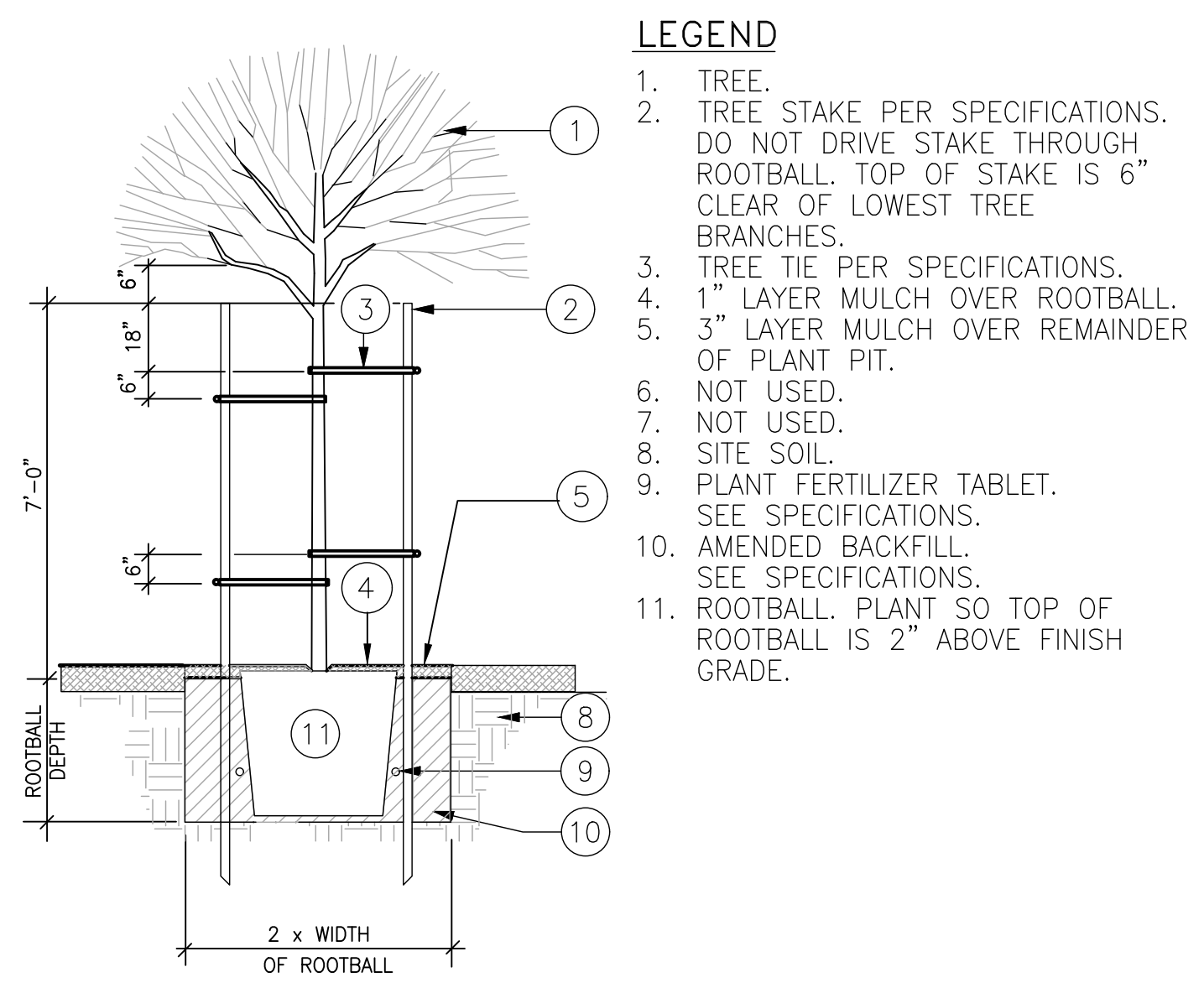


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06/03/2024



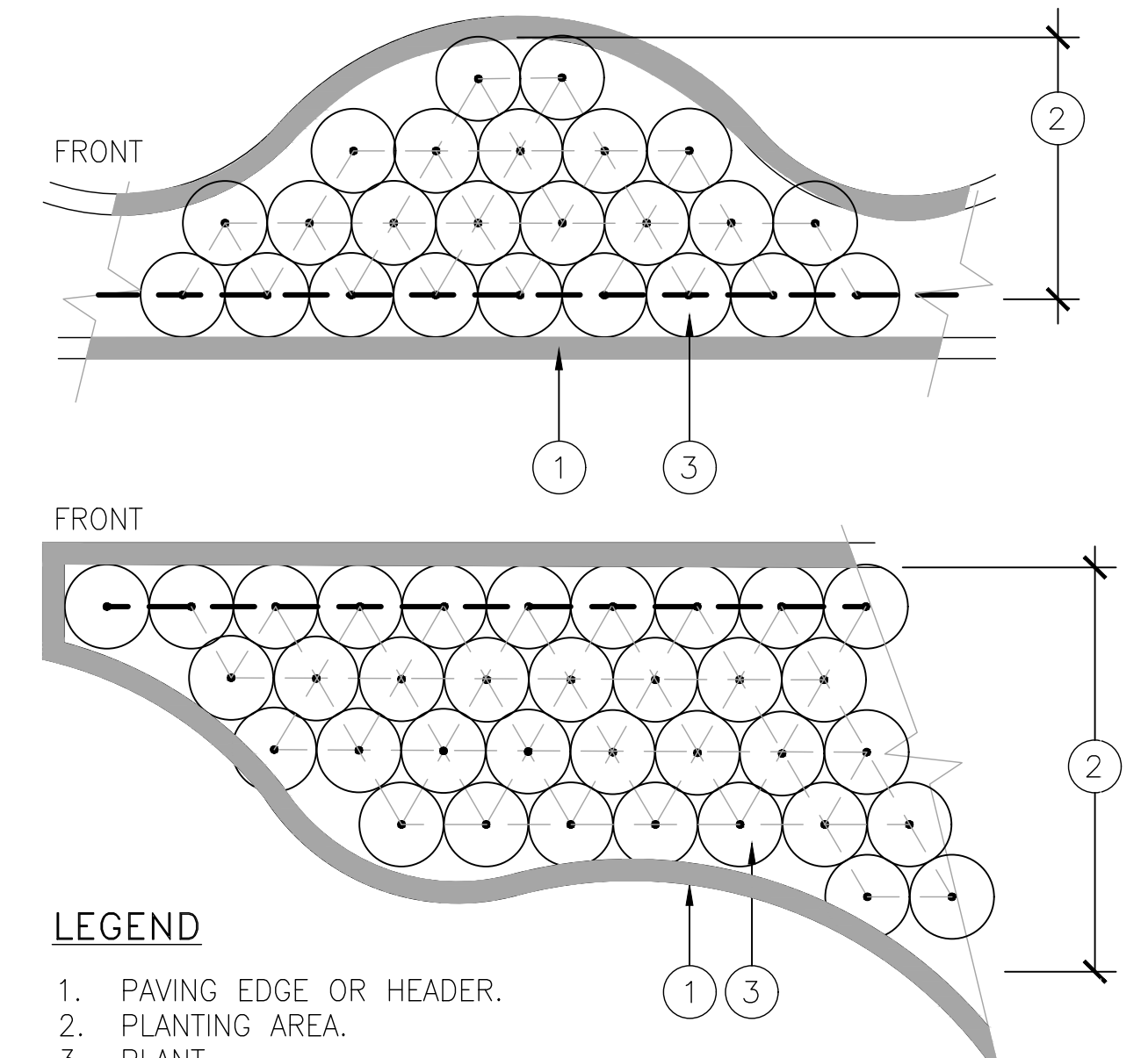
DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
YY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET	NO.
YY							SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	31	OF 48
YY							SHEET TITLE	PLANTING PLAN	
JZ			AS BUILT				SCALE	AS SHOWN	ACCOUNT NUMBER XXXXXX
								DWG. NO.	





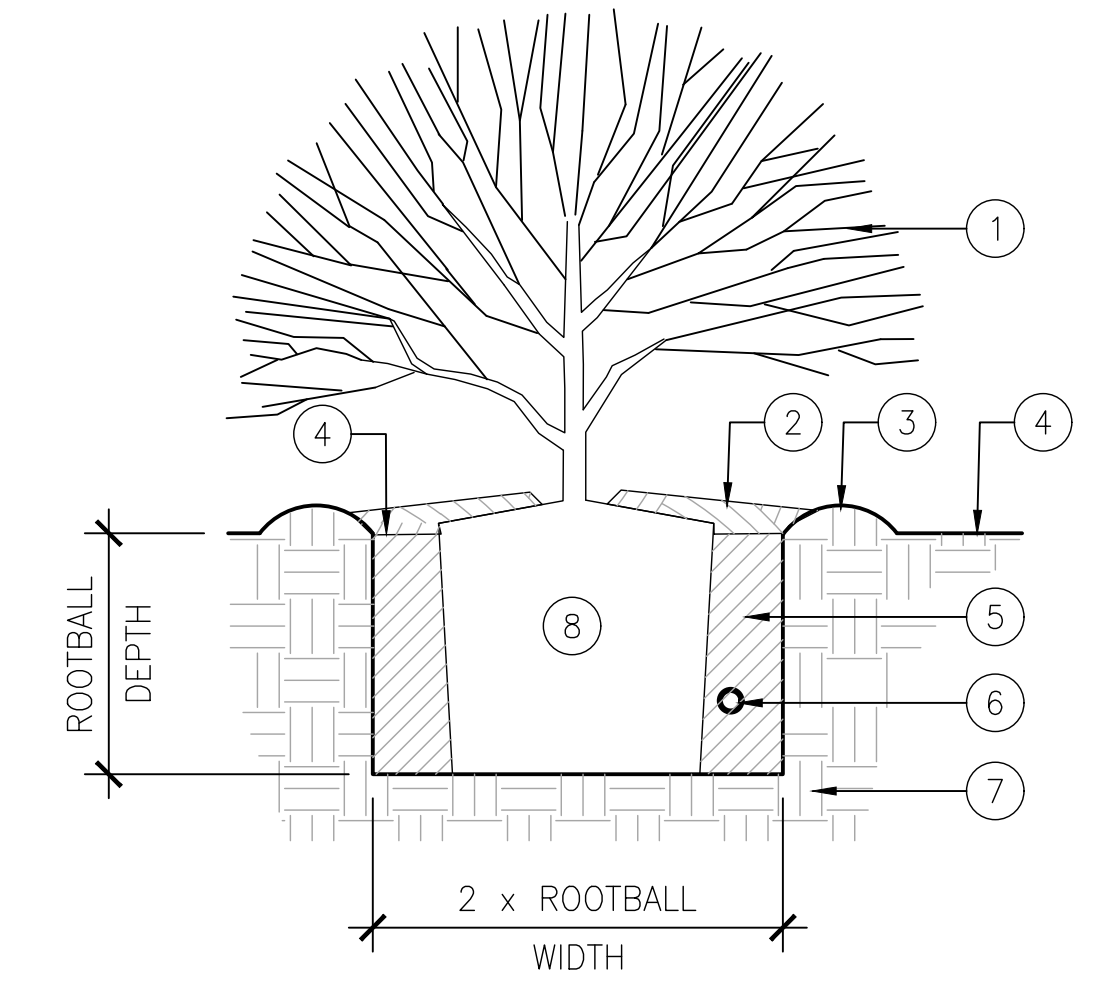
- LEGEND**
1. TREE.
  2. TREE STAKE PER SPECIFICATIONS. DO NOT DRIVE STAKE THROUGH ROOTBALL. TOP OF STAKE IS 6" CLEAR OF LOWEST TREE BRANCHES.
  3. TREE TIE PER SPECIFICATIONS.
  4. 1" LAYER MULCH OVER ROOTBALL.
  5. 3" LAYER MULCH OVER REMAINDER OF PLANT PIT.
  6. NOT USED.
  7. NOT USED.
  8. SITE SOIL.
  9. PLANT FERTILIZER TABLET. SEE SPECIFICATIONS.
  10. AMENDED BACKFILL. SEE SPECIFICATIONS.
  11. ROOTBALL. PLANT SO TOP OF ROOTBALL IS 2" ABOVE FINISH GRADE.

**5 DOUBLE STAKE TREE PLANTING**  
SCALE: N.T.S. xxxxxx.dwg



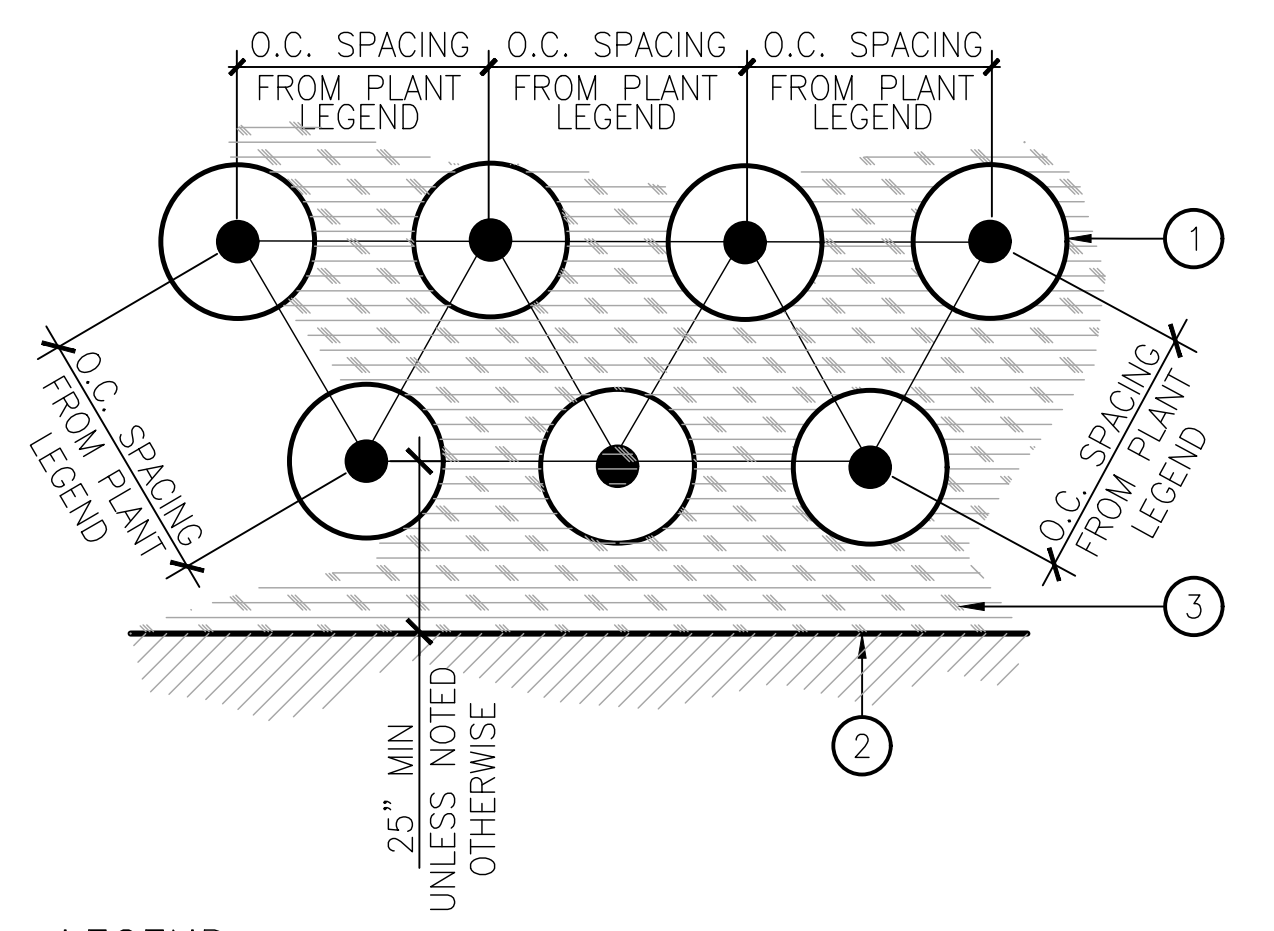
- LEGEND**
1. PAVING EDGE OR HEADER.
  2. PLANTING AREA.
  3. PLANT.
- NOTE: PLANT @ SPACING SHOWN ON PLAN AND SPACING DETAIL.

**3 PLANT LAYOUT @ IRREGULAR AREAS**  
SCALE: N.T.S. 32 90 00 SHRUB - IRREGULAR LAYOUT.dwg



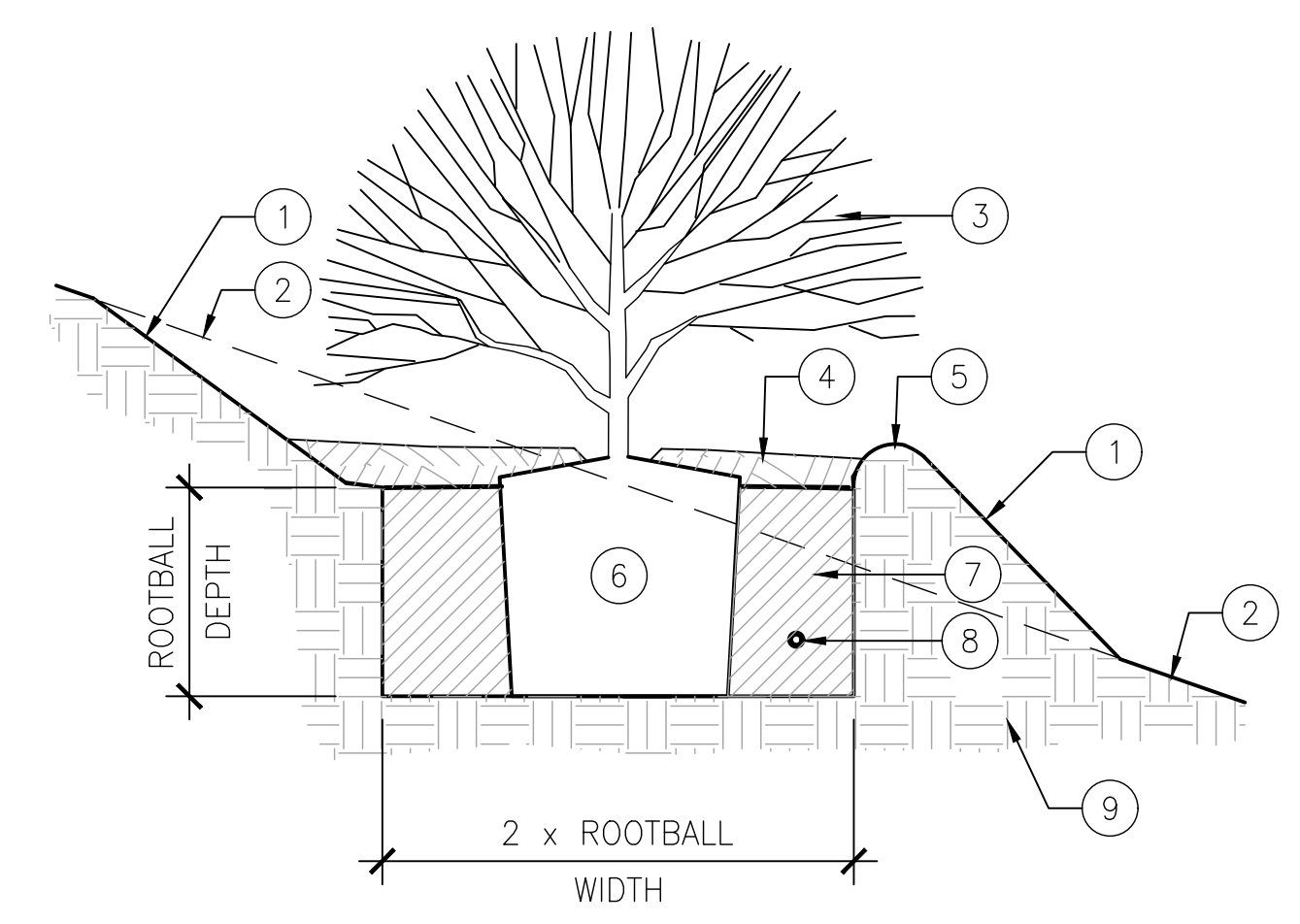
- KEYNOTE LEGEND**
1. SHRUB.
  2. MULCH. SEE SPECIFICATIONS.
  3. 3" HT WATERING BASIN.
  4. FINISH GRADE.
  5. AMENDED BACKFILL. SEE SPECIFICATIONS.
  6. FERTILIZER TABLET. SEE SPECIFICATIONS.
  7. SITE SOIL.
  8. ROOTBALL. SET TOP OF ROOTBALL 2" ABOVE FINISH.

**1 SHRUB PLANTING**  
SCALE: N.T.S. 32 90 00 SHRUB PLANTING.dwg



- LEGEND**
1. SHRUB/GROUNDCOVER - TRIANGULATED ROWS.
  2. HARDSCAPE ELEMENT: CURB, WALK, ETC.
  3. MULCH PER SPECIFICATIONS.

**4 SHRUB/GROUNDCOVER SPACING**  
SCALE: N.T.S. 32 90 00 SHRUB-GC SPACING.dwg



- LEGEND**
1. FINISH GRADE-SLOPE NOT TO EXCEED 1-1/2 : 1
  2. EXISTING GRADE. SLOPE VARIES.
  3. SHRUB.
  4. MULCH. SEE SPECIFICATIONS.
  5. 3" HT WATERING BASIN.
  6. ROOTBALL. SET TOP OF ROOTBALL 2" ABOVE FINISH GRADE.
  7. AMENDED BACKFILL. SEE SPECIFICATIONS.
  8. FERTILIZER TABLET. SEE SPECIFICATIONS.
  9. SITE SOIL.

**2 SHRUB PLANTING - ON SLOPE**  
SCALE: N.T.S. 32 90 00 SHRUB - ON SLOPE.dwg

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06/03/2024

DRAWN BY					REVISIONS					CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
YY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT		SHEET		SR-L-15	
YY							SHEET TITLE	PLANTING DETAILS		32		OF 48	
JZ			AS BUILT	JZ			SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.		

Date: July 8, 2022 Z:\SHARED\LOS ANGELES\PRODUCTION\2022\122001\CAD\122001\_SR-L-14.DWG

BACKGROUND PLAN AND ONE LINE SYMBOLS	
SYMBOL	DESCRIPTION
	CONTROL SWITCH (SEL. OR P.B.) SEE CIRCUITS FOR SPECIFIC TYPE
	SEE CIRCUITS FOR SPECIFIC TYPE FLOAT SWITCH - FLOW SWITCH
	TEMPERATURE - HUMIDISTAT SWITCH (SUBSCRIPT = NO. OF STAGES)
	LIMIT - PRESSURE - VACUUM SWITCH
	ELECTRICAL OR MECHANICAL ALTERNATOR (SEE WIRING)
	OVERLOAD SWITCH OR DEVICE
	TERMINAL BOX
	SOLENOID VALVE
	PHOTOCELL LINE VOLTAGE
	ITEM NO. INTERCOM EQUIPMENT
	INTERCOMMUNICATION SYSTEM AMPLIFIER - WALL STATION - LINE BALANCE
	INTERCOMMUNICATION DESK SET
	INTERCOM. SPEAKER (SURFACE MTD.)
	INTERCOM. SPEAKER (CEILING LAY-IN)
	TELEPHONE OUTLET OR JUNCTION BOX
	WELDING RECEPTACLE - NEMA L9-50R 600V, 2P, 3W, SIMPLEX
	INTERCOM HANDSET - SURFACE MOUNTED WITH REMOTE SPEAKER AMPLIFIER
	INTERCOM VOLUME CONTROL
	INTERCOM SPEAKER - SURFACE MOUNTED
	INTERCOM HANDSET - FLUSH MOUNTED WITH REMOTE SPEAKER AMPLIFIER
	AS NOTED (LIGHTING PANEL, CONTROL PANEL, DISTRIBUTION PANEL ETC.) WALL MOUNTED
	JUNCTION BOX
	HEATER
	TRANSFORMER
	CONDUIT WITH CONDUIT SEAL FITTING
	CONDUIT EXPOSED
	CONDUIT CONCEALED
	DIRECT BURIED CONDUIT
	DIRECT BURIED CABLE
	OVERHEAD LINE
	UNDERGROUND DUCT BANK
	CONCRETE ENCASED DUCT BANK, WITH CABLE LOCATIONS AND SPARE DUCTS AS INDICATED ON DRAWINGS
	CABLE REEL
	MOTOR OPERATED VALVE

SYMBOL	DESCRIPTION
	LOW VOLTAGE DISCONNECT SWITCH
	LOW VOLTAGE FUSE (BELOW 600V)
	ALL STARTERS SHALL BE FULL VOLTAGE NON-REVERSING UNLESS OTHERWISE INDICATED (FVR) FULL VOLTAGE REVERSING (RV) REDUCED VOLTAGE (2S,2W) TWO SPEED, TWO WINDING
	600V, 3 POLE MOLDED CASE CIRCUIT BREAKER, FRAME & RATING AS SHOWN
	SINGLE PHASE, FRACTIONAL HP MOTOR TO LOCATION INDICATED (SEE GEN. NOTE 4)
	THREE PHASE LOAD WITH IDENTIFICATION
	HIGH VOLTAGE FUSE (ABOVE 600 V)
	TAG NO. (BALLOON) FOR DEVICE INDICATED
	FOR POWER (SEE GEN. NOTE 4) 3/4" C/2" C#18 SHLD. CONDUIT AND WIRE RUN FROM DEVICE INDICATED TO LOCATION INDICATED
	CAPACITOR, 3 PHASE, SIZE AS INDICATED
	DISCONNECT SWITCH (F) = FUSED (C) = CIRCUIT BREAKER
	MAGNETIC STARTER (BACKGROUND DRAWINGS ONLY)
	COMBINATION MAGNETIC STARTER FUSED UNLESS NOTED (CIRCUIT BREAKER)
	COMBINATION LIGHTING CONTACTOR WITH HAND-OFF-AUTO SWITCH
	MANUAL STARTER (R) = REVERSING
	CONTROL PANEL
	TEMPERATURE CONTROL PANEL
	UNIT HEATER, 1/8 HORSEPOWER
	600 VOLT FEEDER BUS DUCT (AMPERAGE AS INDICATED)
	LIGHTNING ARRESTOR
	LOW VOLTAGE HOME RUNS 120/208 V 120/240 V (SEE GEN. NOTE 4)
	WATERTIGHT
	WATERTIGHT AND CORROSION PROOF
	EXPLOSION PROOF - CLASS I, DIVISION I, GROUP D
	EXPLOSION PROOF - CLASS II, DIVISION 1
	KEYLOCK
	SMOKE DETECTOR
	EXIT LIGHT
	FLUORESCENT LUMINAIRE
	INCANDESCENT LUMINAIRE
	HIGH INTENSITY DISCHARGE LIGHT
	EMERGENCY BATTERY PACK

CONTROL CIRCUIT & PILOT DEVICE LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	PRESS. ACTUATED SWITCH		SELECTOR SWITCH OPERATOR WITH FUNCTION SHOWN
	FLOAT ACTUATED SWITCH		MOMENTARY PUSHBUTTON OPERATOR-NORMALLY OPEN
	FLOW ACTUATED SWITCH		MOMENTARY PUSHBUTTON OPERATOR-NORMALLY CLOSED
	TEMP. ACTUATED SWITCH		PUSHBUTTON OPERATOR WITH MUSHROOM HEAD
	LIMIT SWITCH- NORMALLY OPEN		FIELD LOCATED STOP BUTTON
	LIMIT SWITCH- NORMALLY CLOSED		MAINTAINED PUSH-PULL OPERATOR
	LIMIT SWITCH-NORMALLY CLOSED-HELD OPEN		MAINTAINED STOP-START PUSHBUTTON OPERATOR
	LIMIT SWITCH-NORMALLY OPEN-HELD CLOSED		SOLENOID OR CLUTCH
	LATCHING CABLE SWITCH		PUSH-TO-TEST INDICATING LIGHT
	TIME-DELAY FUSE		MAINTAINED STOP- MOMENTARY START PUSHBUTTON (JOG)
	CONTROL RELAY COIL		ZERO SPEED OR ANTI- PLUGGING SWITCH
	CONTROL RELAY CONTACT-NORMALLY OPEN		LOCAL TERMINALS WITH EXTERNAL WIRING
	CONTROL RELAY CONTACT-NORMALLY CLOSED		ELAPSED TIME INDICATOR
	TWO COIL LATCHING RELAY		TIMING RELAY INSTANTANEOUS CONTACTS
	TIMING RELAY COIL		
	TIMED CLOSED CONTACT ON ENERGIZATION		
	TIMED OPEN CONTACT ON ENERGIZATION		
	TIMED OPEN CONTACT ON DE-ENERGIZATION		
	TIMED CLOSED CONTACT ON DE-ENERGIZATION		
	120 VAC TRANSFORMER		

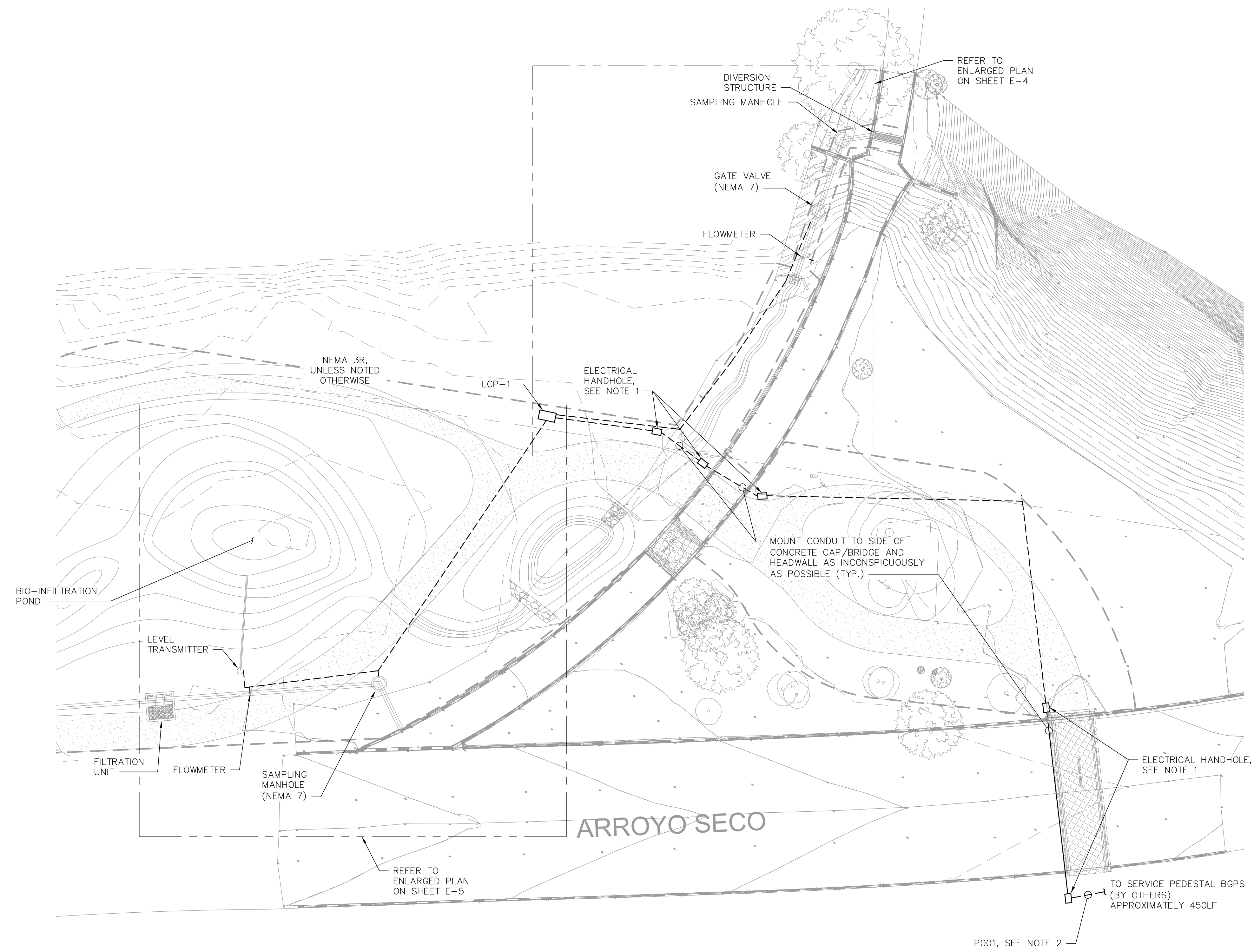
WIRING DEVICE SCHEDULE			
SYMBOL	DESCRIPTION	NEMA TYPE	
	125V, 2P, SIMPLEX, CLOCK HANGER	1-15 R	
	125V, 2P, SIMPLEX, 3W	5-20 R	
	125V, 2P, DUPLEX, 3W	5-20 R	
	125/250V, 3P, SIMPLEX, 3W, RANGE TYPE	10-50 R	
	20A, 120/277 V SWITCH	SPST	
	20A, 120/277 V SWITCH	2PDT	
	20A, 120/277 V SWITCH	3 WAY	
	20A, 120/277 V SWITCH	4 WAY	
	20A, 120/277 V DIMMER SWITCH		
	250V, 2P, SIMPLEX, 3W, 50A	6-50R	
	125V, 2P, MULTI-RECEPTACLE	5-15R	
	250V, 2P, SIMPLEX, 3W, 20A	6-20R	
	600V, 2P, 3W, SIMPLEX WELDING	L9-50R	
	208V, 3P, SIMPLEX, 4W, LOCKING	L14-20R	
	277V, 2P, DUPLEX, 3W	7-15R	

- GENERAL NOTES:
- ELECTRICAL MATERIALS AND EQUIPMENT ITEMS SHOWN IN LIGHT LINE WEIGHTS ON THE DRAWINGS ARE EXISTING ITEMS TO REMAIN. ELECTRICAL MATERIALS AND EQUIPMENT ITEMS SHOWN IN HEAVY LINE WEIGHTS ARE NEW THIS CONTRACT.
  - ITEMS SHOWN CROSSHATCHED ON THE DRAWINGS ARE EXISTING ITEMS TO BE REMOVED.
  - FOR ITEMS INDICATED AS "FIELD LOCATE" CHECK DRAWINGS OF OTHER TRADES (IN PARTICULAR PIPING AND STRUCTURAL) FOR INTERFERENCE AND FOR LOCATIONS OF MOUNTING FLANGES, CONNECTION POINTS, ETC.
  - INSTALL A SINGLE CONDUCTOR INSULATED (RHW, THHN, OR XHHW) COPPER GROUND WIRE IN EACH CONDUIT, SIZE AS SHOWN ON DRAWINGS OR AS A MINIMUM PER THE NATIONAL ELECTRICAL CODE. THIS GROUND WIRE SHALL BE CONNECTED AT EACH END TO THE EQUIPMENT GROUND. CONDUIT SHALL BE 3/4" MIN.
  - THE FOLLOWING COMPONENT IDENTIFICATION SHALL BE USED AS APPROPRIATE:  
(F) FIELD MOUNTED, NOT AT STARTER OR OTHER CONTROL PANELS.  
(S) STARTER PANEL MOUNTED.  
(MCP) AT MAIN CONTROL PANEL.  
(1) AT CONTROL PANEL NO. 1  
(2) AT CONTROL PANEL NO. 2  
(TCP) AT TEMPERATURE CONTROL PANEL.

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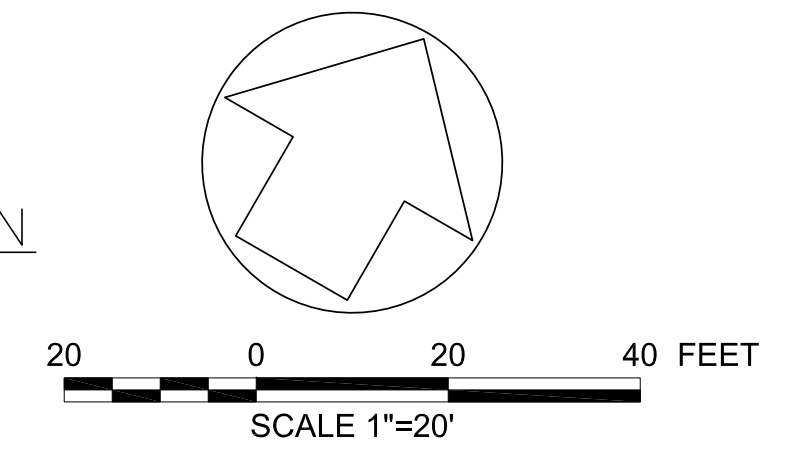
DRAWN BY JJI	REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET
DESIGNED BY FWY							SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	SR-E-1
CHECKED BY FWY							SHEET TITLE	39 OF 48
							LEGENDS AND SYMBOLS	DWG. NO.
							SCALE	AS SHOWN
							ACCOUNT NUMBER	XXXXXX

- NOTES:
1. TRAFFIC-RATED HANDHOLE, SIZED PER NEC.
  2. TRENCH ALONG ARROYO SECO TRAIL ON SOUTHERN SIDE TO MAINTAIN MAXIMUM DISTANCE FROM ARROYO SECO CHANNEL, BACKFILL AND COMPACT TO MATCH EXISTING. ROUTE CONDUIT TO NEW SERVICE PEDESTAL BGPS (BY OTHERS) AND TERMINATE WIRES ON 30A/2P BREAKER (BY OTHERS) WITHIN BGPS. IF 30A/2P BREAKER LUG SIZE IS UNABLE TO TERMINATE WIRES, THEN REPLACE WITH NEW SQUARE D B-FRAME 30A/2P BREAKER, OR APPROVED EQUAL.



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06/03/2024

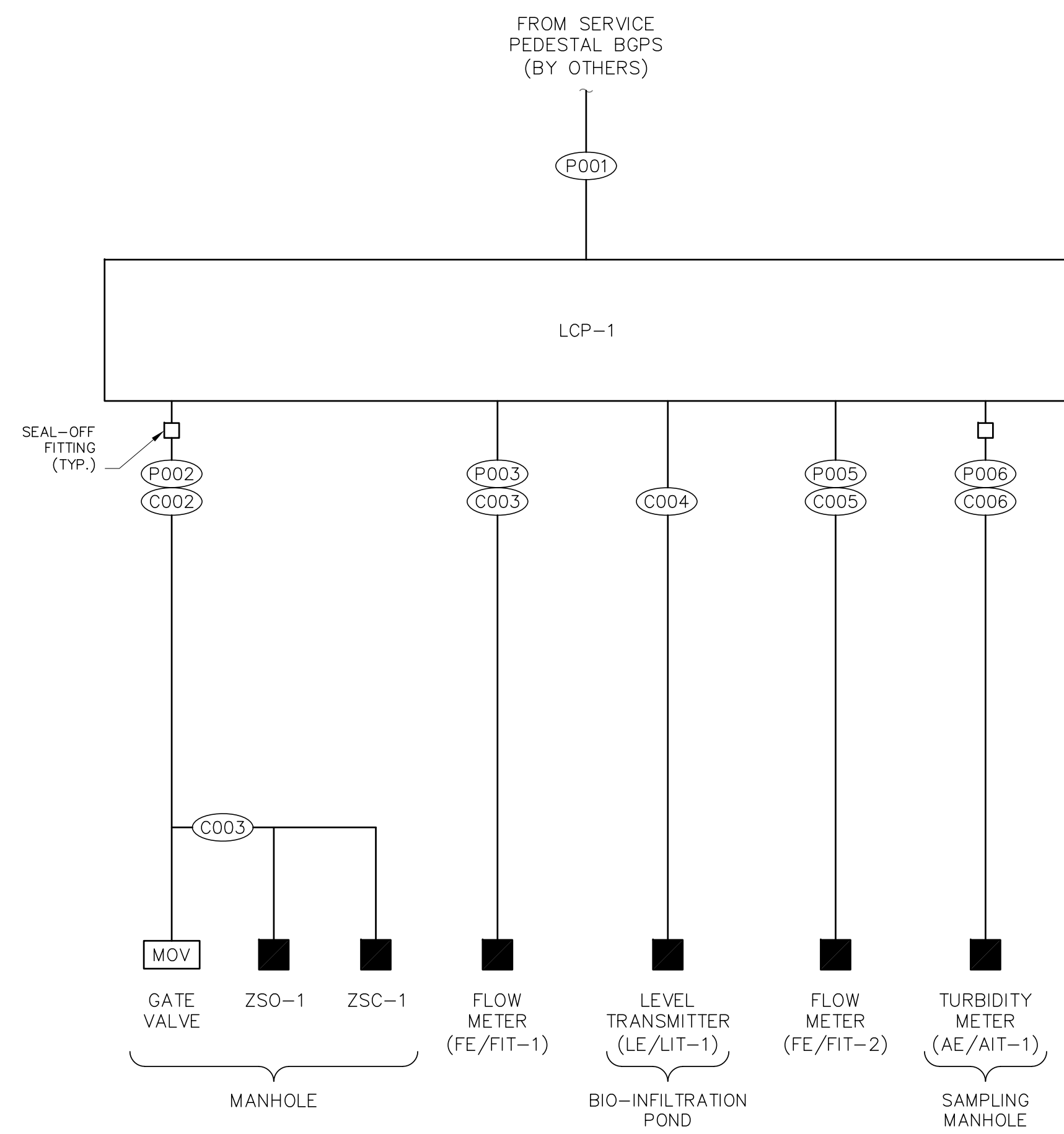
PROPOSED SITE PLAN  
SCALE: 1" = 20'-0"



DRAWN BY	REVISIONS				
	MARK	DATE	DESCRIPTION	BY	CHKD./APPROVED
JJI					
DESIGNED BY					
FWY					
CHECKED BY					
FWY			AS BUILT		

CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT		SHEET <b>SR-E-2</b>
SHEET TITLE	SAN RAFAEL PROPOSED SITE PLAN		<b>40</b> OF <b>48</b>
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
DWG. NO.			

ELECTRICAL LOAD SUMMARY	
LOAD	AMPS
GATE VALVE	20.0
LCP-1 (120V LOADS)	5.0
SUB-TOTAL	
25% OF LARGEST MOTOR	5.0
TOTAL @ 240V, 1-PH	30.0

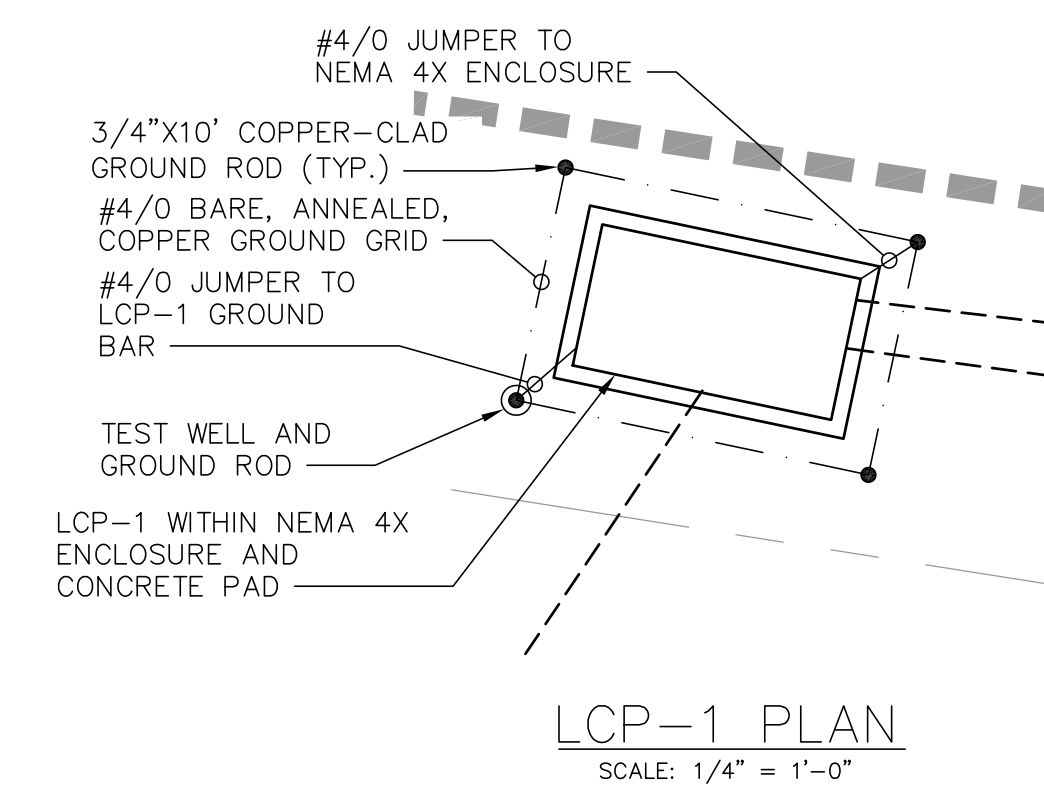


SINGLE-LINE AND RISER DIAGRAM  
NO SCALE

CONDUIT AND WIRE SCHEDULE										
TAG	CONDUIT			COPPER WIRES				FROM	TO	NOTES
	SETS	SIZE (INCH)	TYPE	QTY	PHASE	GROUND	TYPE			
P001	1	1 1/2	RGS	2	#1/0	#1/0	XHHW	SERVICE PEDESTAL BGPS (BY OTHERS)	LCP-1	
P002	1	1	PVC SCH.40	2	#10	#10	XHHW	LCP-1	GATE VALVE 1	RGS ELBOW BELOW-GRADE AND RGS ABOVE-GRADE/EXPOSED
P003	1	1	PVC SCH.40	2	#12	#12	XHHW	LCP-1	FLOW METER (FE/FIT-1)	RGS ELBOW BELOW-GRADE AND RGS ABOVE-GRADE
P004										NOT USED
P005	1	1	PVC SCH.40	2	#12	#12	XHHW	LCP-1	FLOW METER (FE/FIT-2)	RGS ELBOW BELOW-GRADE AND RGS ABOVE-GRADE
P006	1	1	PVC SCH.40	2	#12	#12	XHHW	LCP-1	TURBIDITY METER (AE/AIT-1)	RGS ELBOW BELOW-GRADE AND RGS ABOVE-GRADE/EXPOSED
C001										NOT USED
C002	1	1	PVC SCH.40	10	#14	#14	THWN	LCP-1	GATE VALVE 1	RGS ELBOW BELOW-GRADE AND RGS ABOVE-GRADE/EXPOSED
C003	1	1	PVC SCH.40	1	2/C#16SH	#14	THWN	LCP-1	FLOW METER (FE/FIT-1)	RGS ELBOW BELOW-GRADE AND RGS ABOVE-GRADE
C004	1	1	PVC SCH.40	1	2/C#16SH	#14	THWN	LCP-1	LEVEL TRANSMITTER (LE/LIT-1)	RGS ELBOW BELOW-GRADE AND RGS ABOVE-GRADE
C005	1	1	PVC SCH.40	1	2/C#16SH	#14	THWN	LCP-1	FLOW METER (FE/FIT-2)	RGS ELBOW BELOW-GRADE AND RGS ABOVE-GRADE
C006	1	1	PVC SCH.40	1	2/C#16SH	#14	THWN	LCP-1	TURBIDITY METER (AE/AIT-1)	RGS ELBOW BELOW-GRADE AND RGS ABOVE-GRADE/EXPOSED

PRELIMINARY -NOT FOR CONSTRUCTION  
06/03/2024

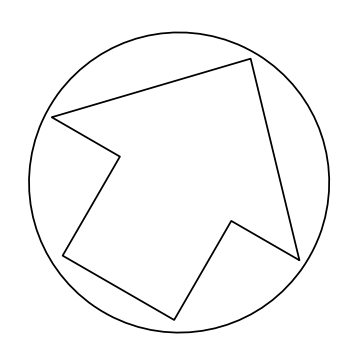
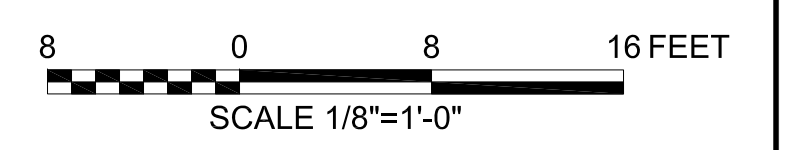
DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SR-E-3
						SHEET TITLE	SAN RAFAEL SINGLE-LINE DIAGRAM		41	OF 48
						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.



SEE LCP-1 PLAN ON THIS SHEET

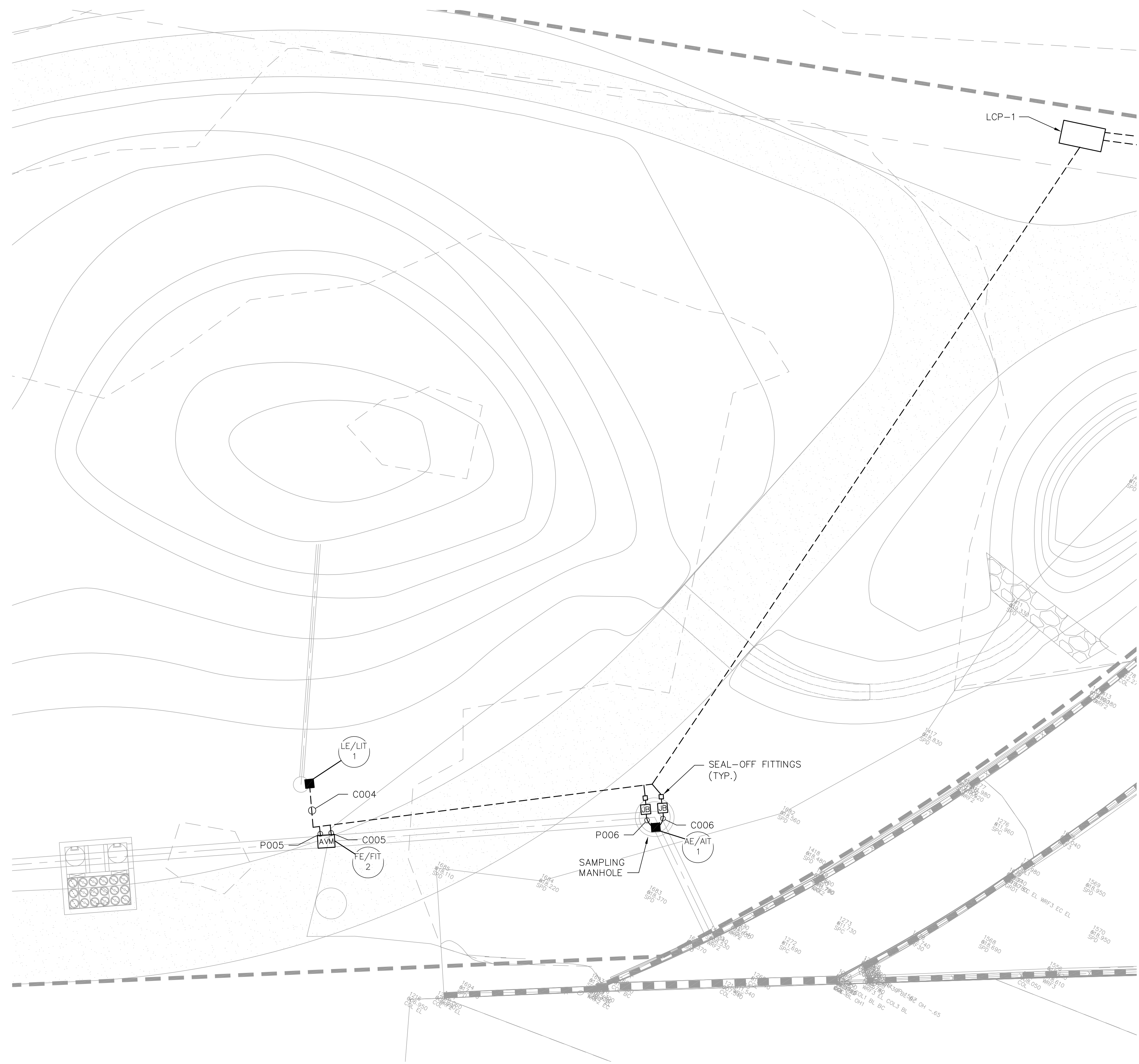
ENLARGED SITE PLAN  
SCALE: 1/8" = 1'-0"

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

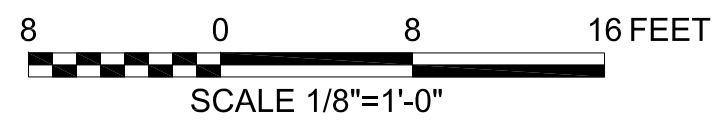
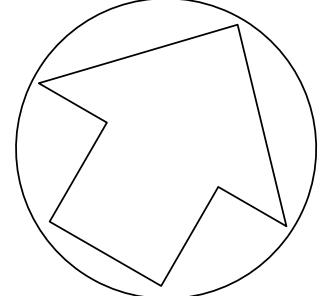


DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SR-E-4
JJI						PROJECT	SAN RAFAEL ENLARGED SITE PLAN		42	OF 48
DESIGNED BY						SHEET TITLE	SAN RAFAEL ENLARGED SITE PLAN		DWG. NO.	
FWY						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	
CHECKED BY										
FWY		AS BUILT								

Date: February 28, 2023 C:\WORK\FELIX\GRAFTWATER\SAN RAFAEL SHEETS\SR E-4 ENLARGED SITE PLAN.DWG



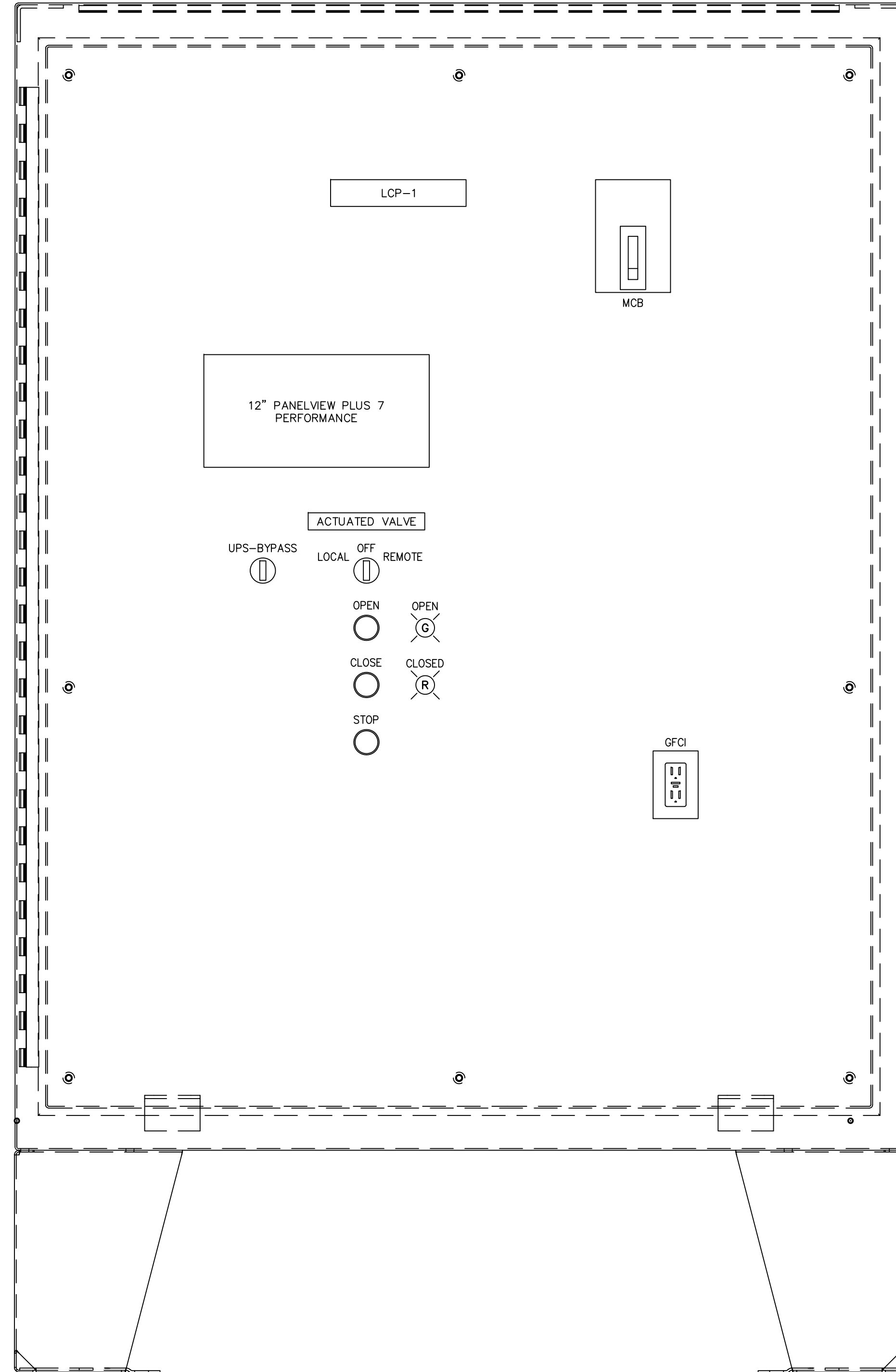
**PRELIMINARY -NOT FOR CONSTRUCTION**  
 06/03/2024



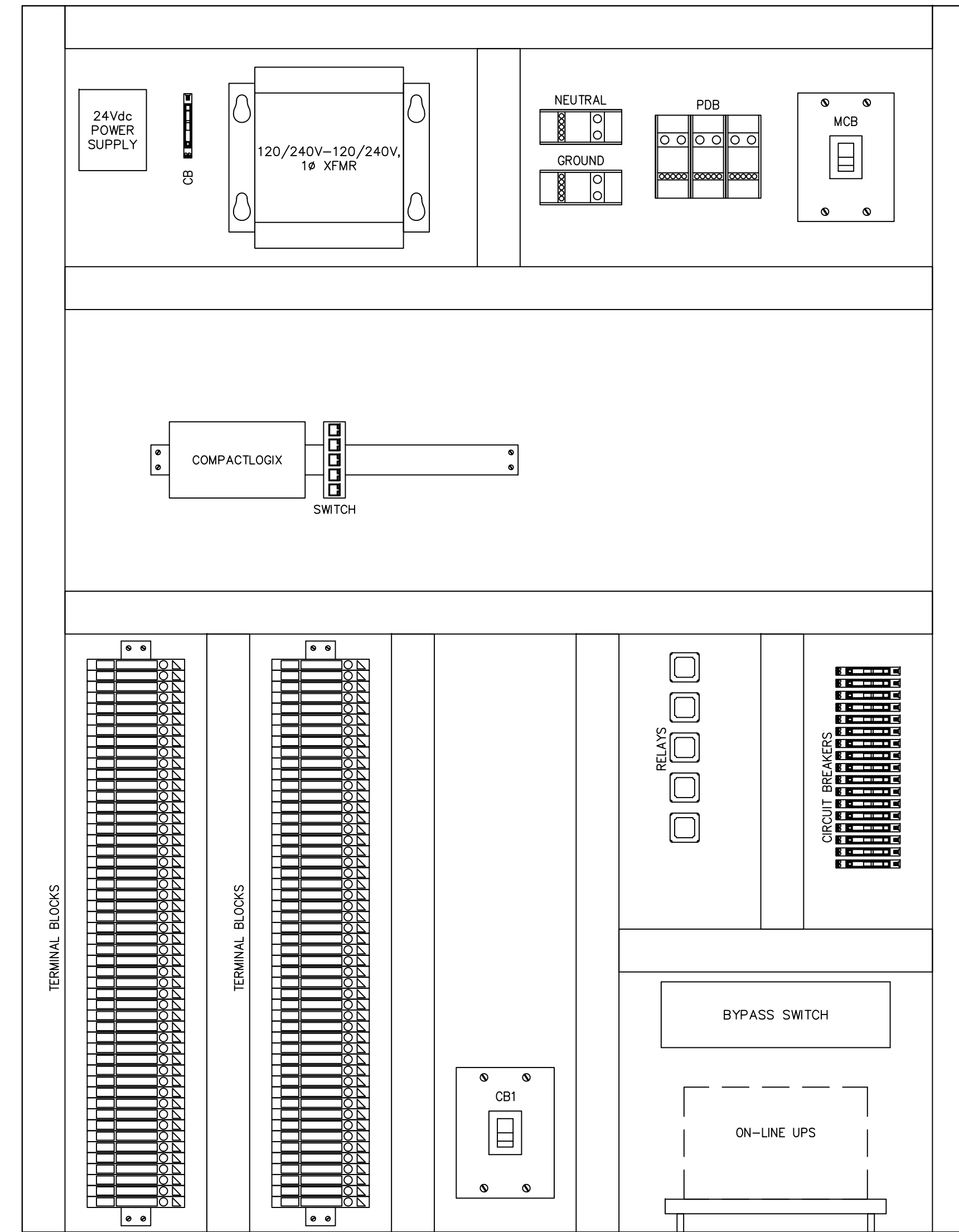
**ENLARGED SITE PLAN**  
 SCALE: 1/8" = 1'-0"

DRAWN BY	REVISIONS				
	MARK	DATE	DESCRIPTION	BY	CHKD./APPROVED
JJI					
DESIGNED BY					
FWY					
CHECKED BY					
FWY			AS BUILT		

CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				
PROJECT	SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SR-E-5
SHEET TITLE	SAN RAFAEL ENLARGED SITE PLAN			43 OF 48
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	
DWG. NO.				



**LOCAL CONTROL PANEL (LCP-1) DEADFRONT LAYOUT**  
NO SCALE



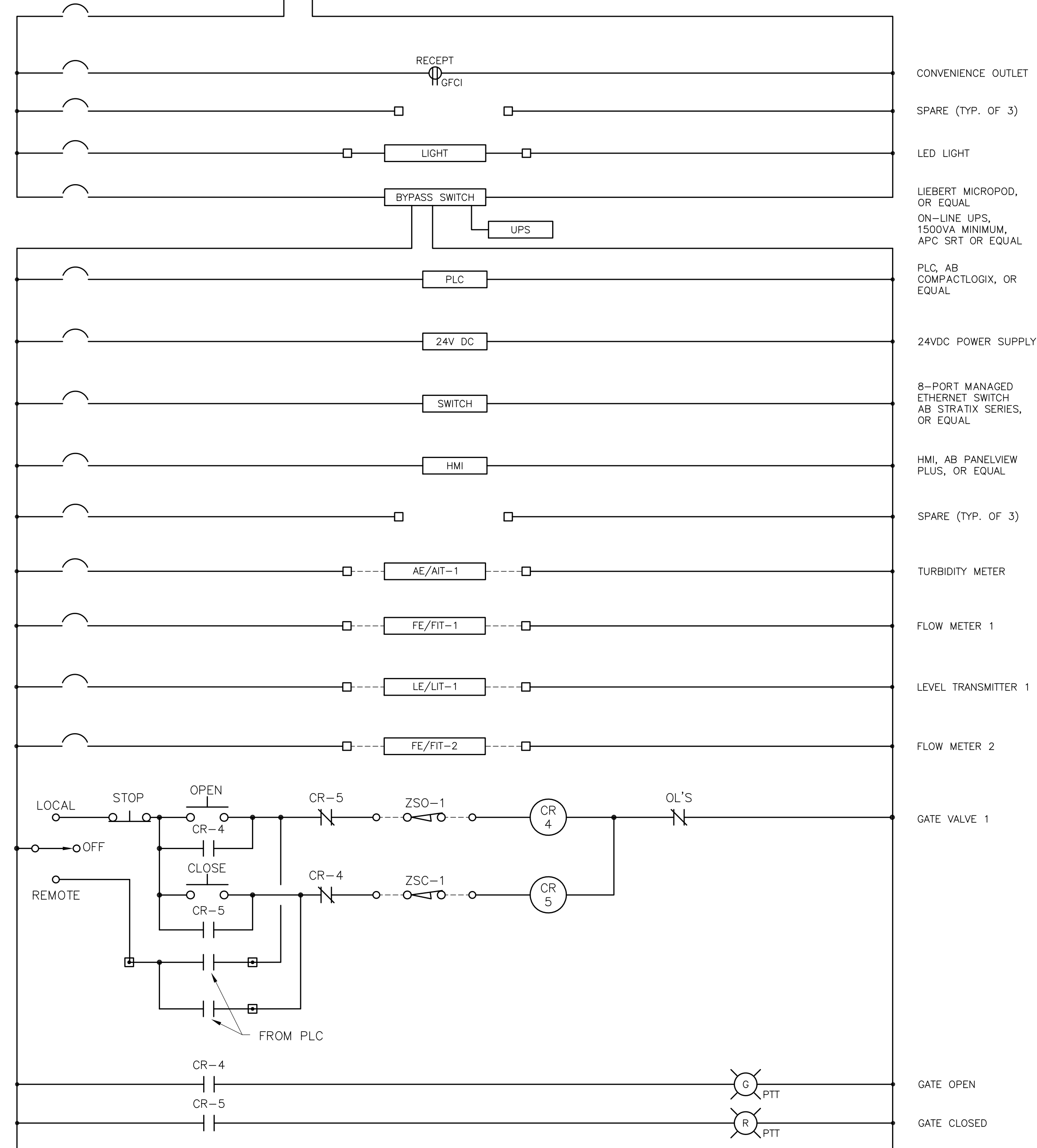
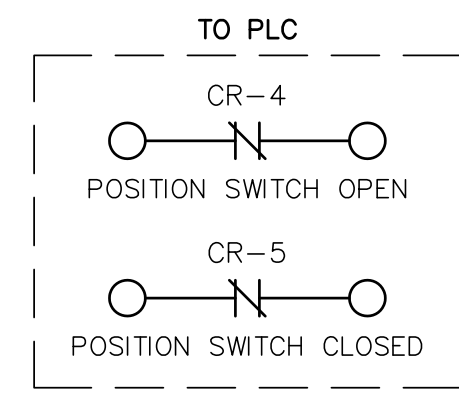
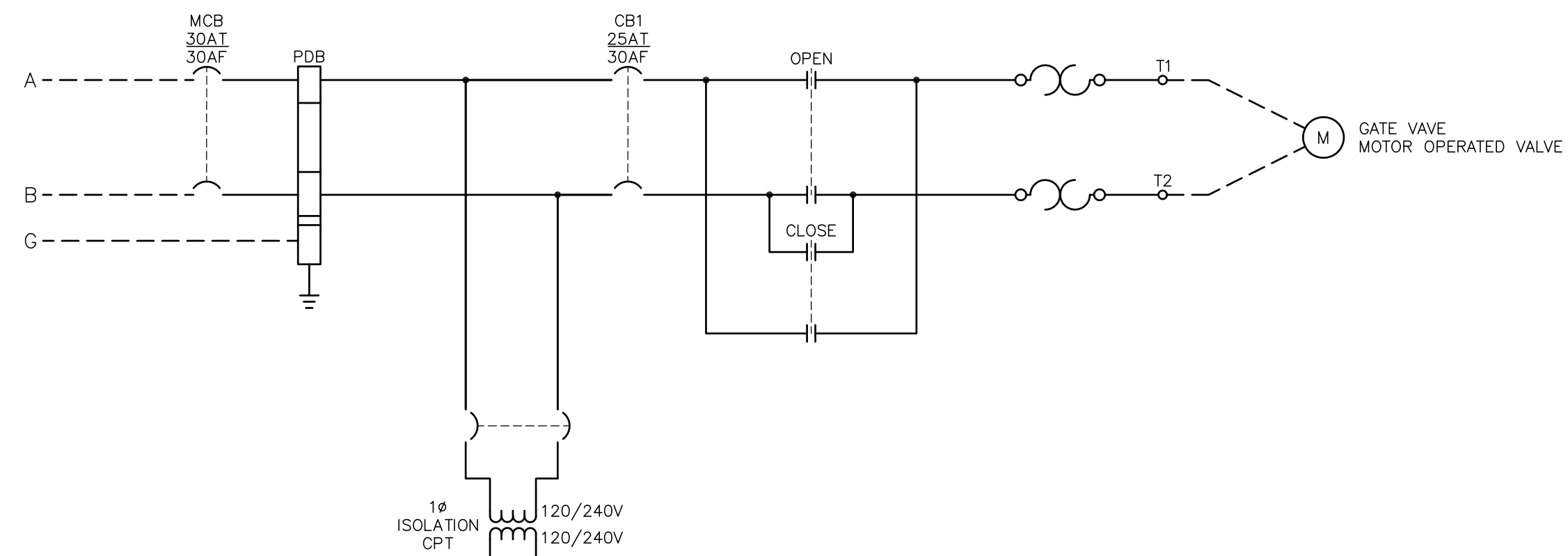
**PROPOSED SUBPLATE LAYOUT**  
NO SCALE

- NOTES:**
1. OUTER DOOR REMOVED TO SHOW DEADFRONT LAYOUT.
  2. ENCLOSURE SHALL BE NEMA TYPE 4X 316-S.S. WITH CONTINUOUS HINGE, AND 3-POINT LATCHING PADLOCKING HANDLE.
  3. HARDWARE SHALL BE STAINLESS STEEL.

**PRELIMINARY -NOT FOR CONSTRUCTION**

06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET		NO.
JJI						SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	44		SR-E-6
DESIGNED BY						SHEET TITLE	LOCAL CONTROL PANEL LAYOUT		OF 48
FWY						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
CHECKED BY								DWG. NO.	
FWY		AS BUILT							

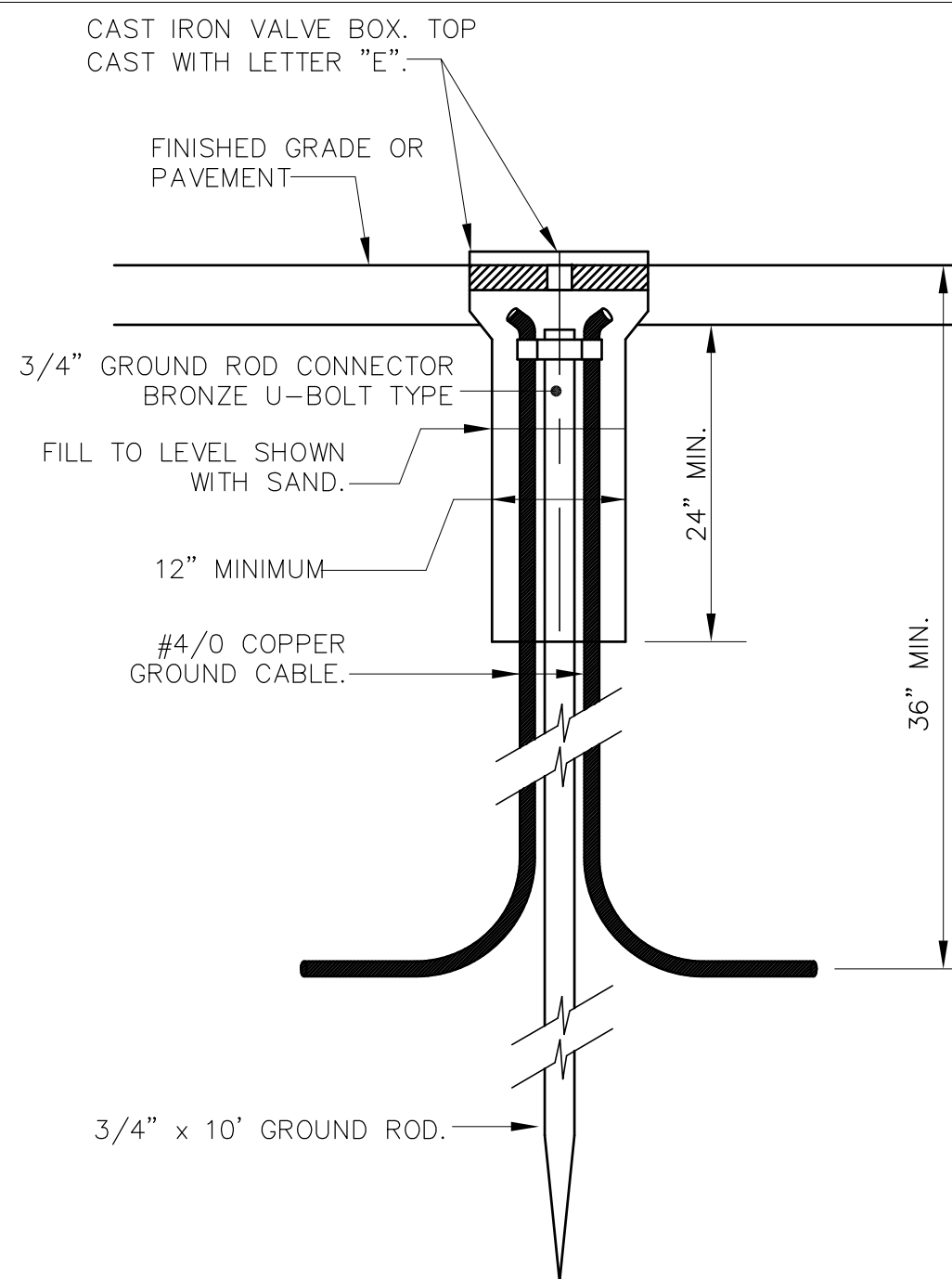


LOCAL CONTROL PANEL LCP-1 WIRING DIAGRAM  
NO SCALE

**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

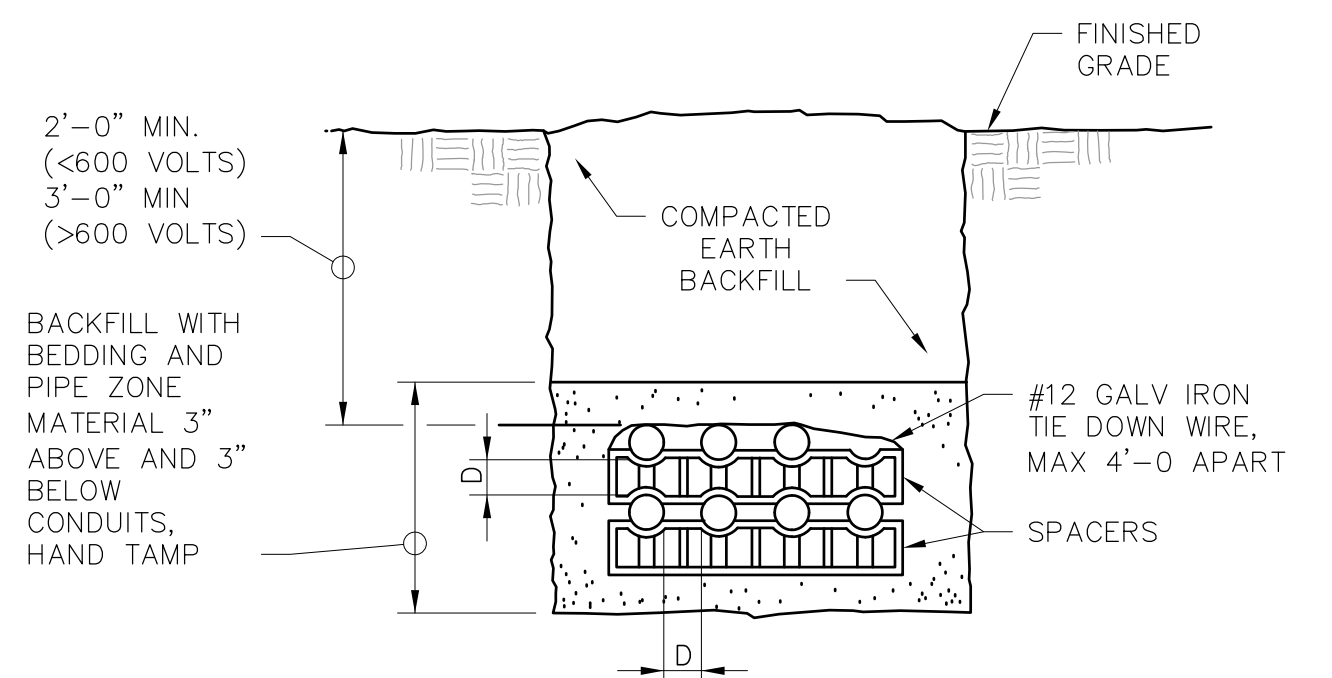
DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET		SR-E-7
JJI						SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	45		OF 48
DESIGNED BY						SHEET TITLE	LOCAL CONTROL PANEL WIRING DIAGRAM		
FWY						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
CHECKED BY								DWG. NO.	
FWY		AS BUILT							





GROUND ROD AND TEST WELL

DETAIL F  
NTS

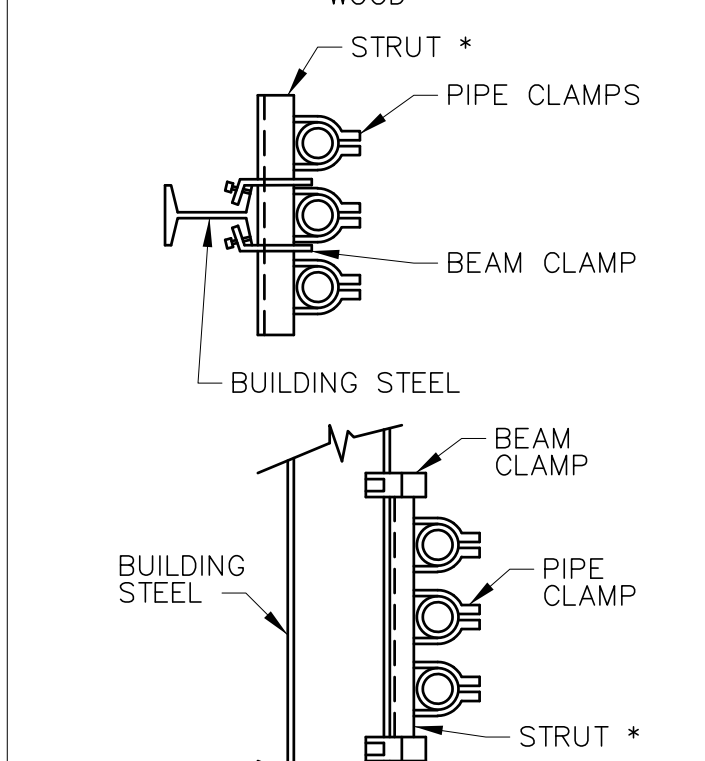
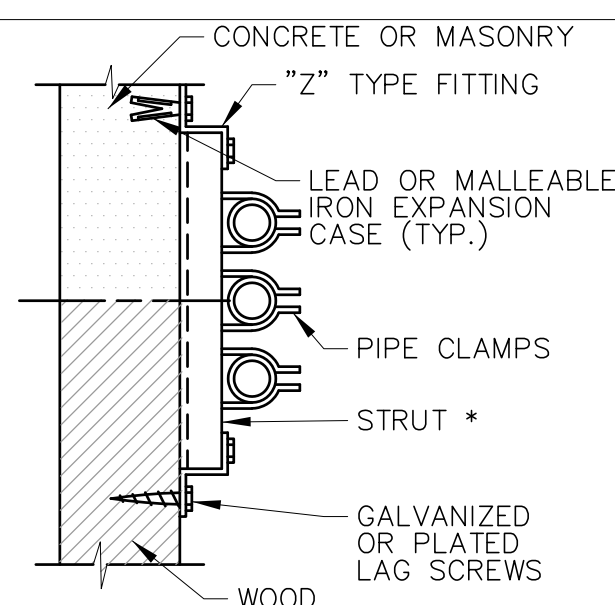


D = 3" MIN. FOR 2"-6" CONDUIT  
D = 2" MIN. FOR <2 INCH CONDUIT

NOTES:  
1. INSTALLATION OF DIRECT BURIAL DUCT BANKS WHICH INCLUDE THREE OR MORE CONDUITS SHALL BE MADE IN ACCORDANCE WITH THIS DETAIL.

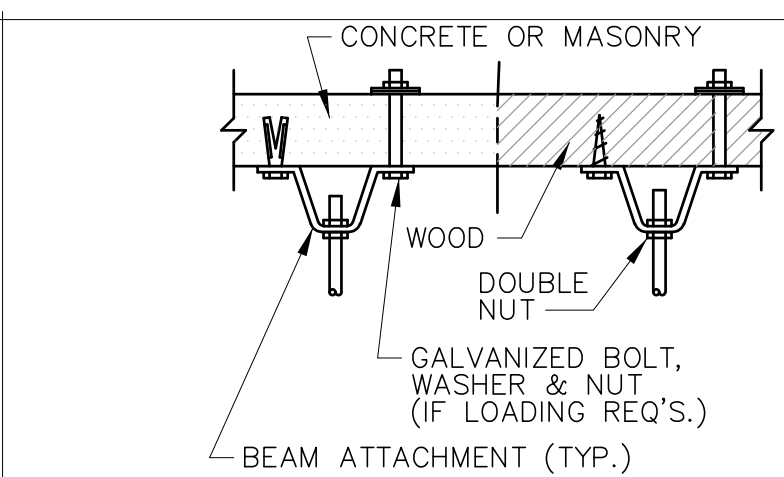
TYPICAL UNDERGROUND CONDUIT

DETAIL G  
NTS

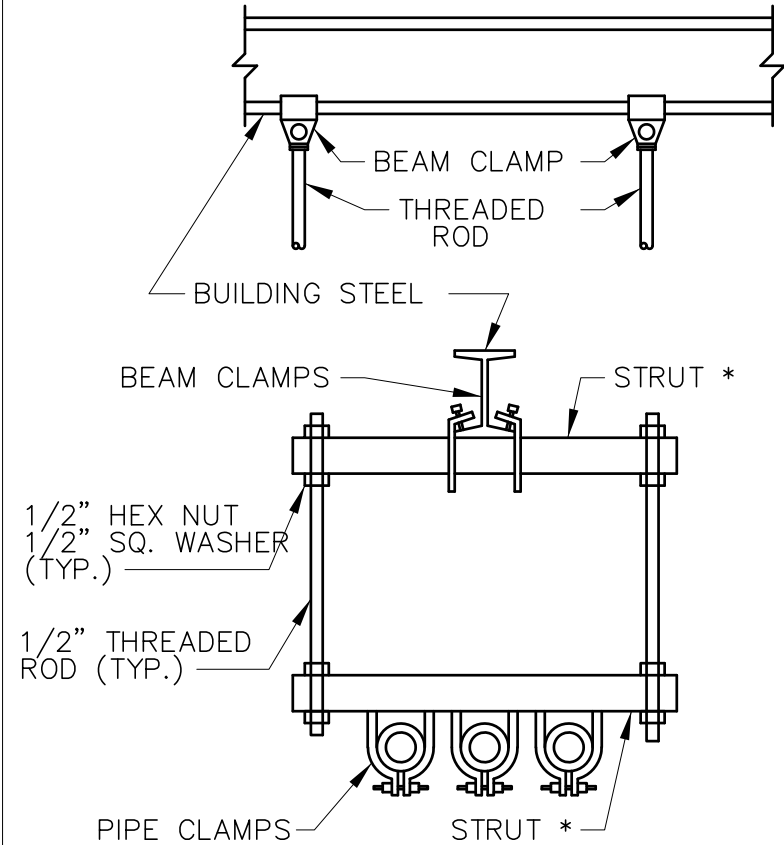


VERTICALLY RACKED AND VERTICAL RUNS

DETAIL H  
NTS

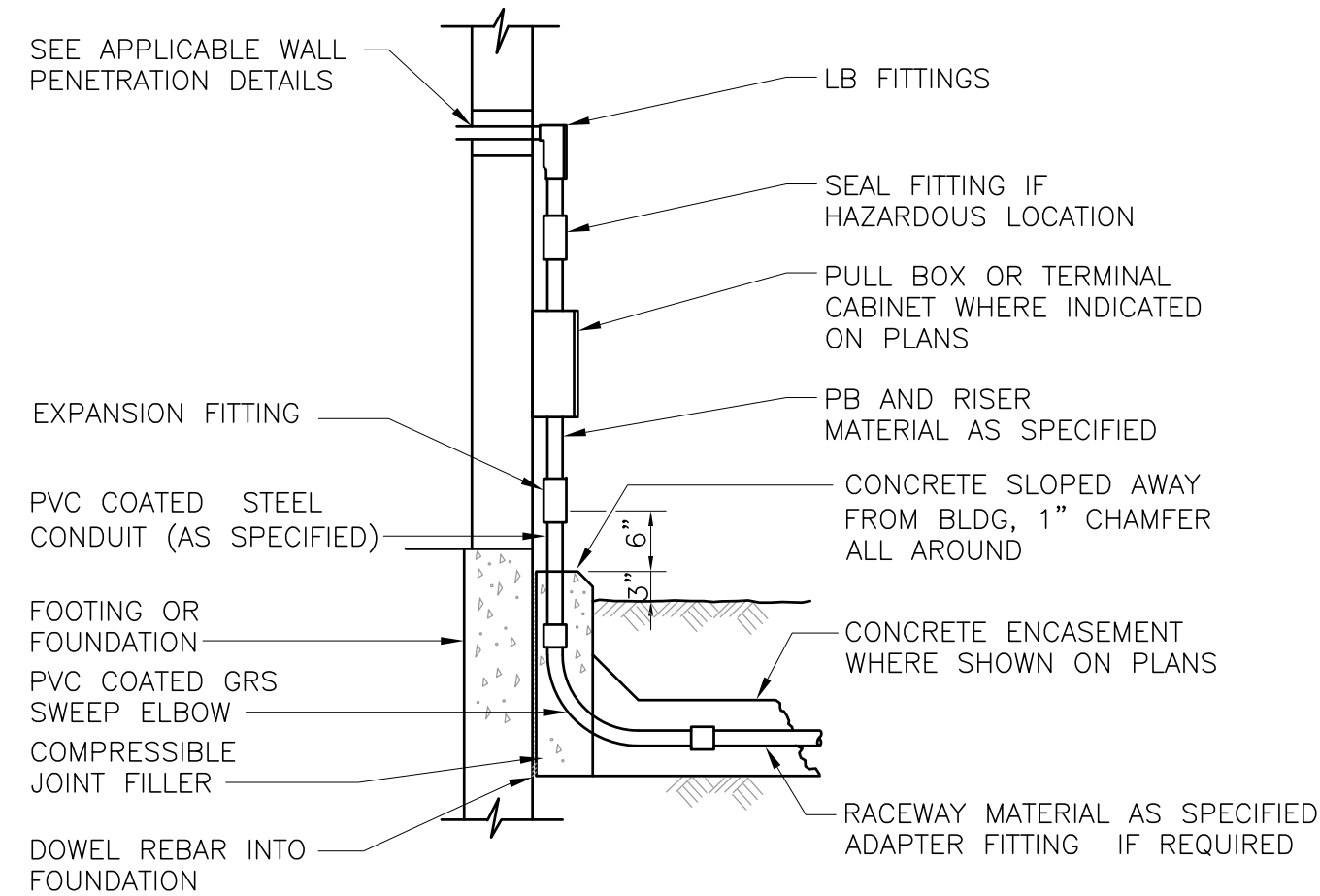


NOTE: \* = STRUT SHALL HAVE A MIN. THICKNESS OF .105 INCH OR 12 GA.



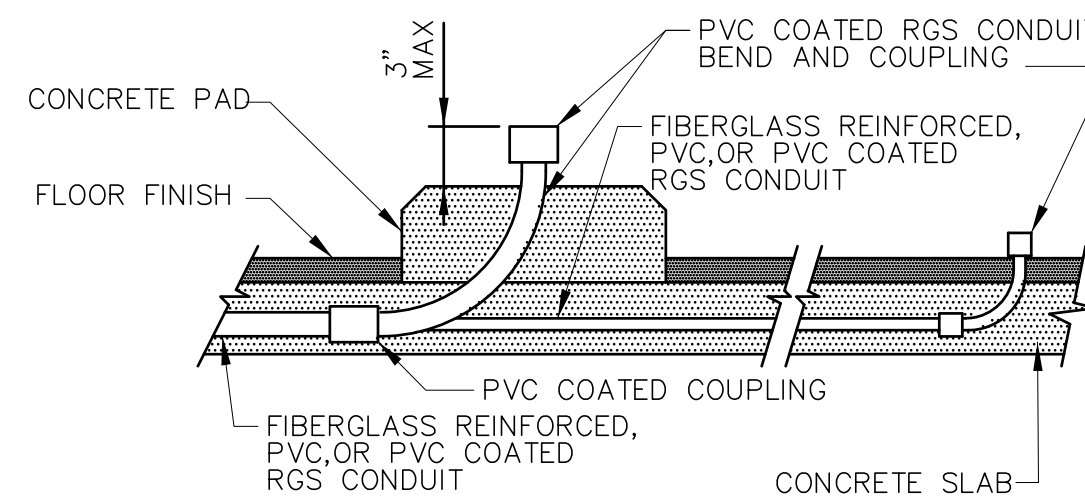
HORIZ. RACKED SUSPENDED RUN

DETAIL I  
NTS



EXISTING BUILDING OR STRUCTURE

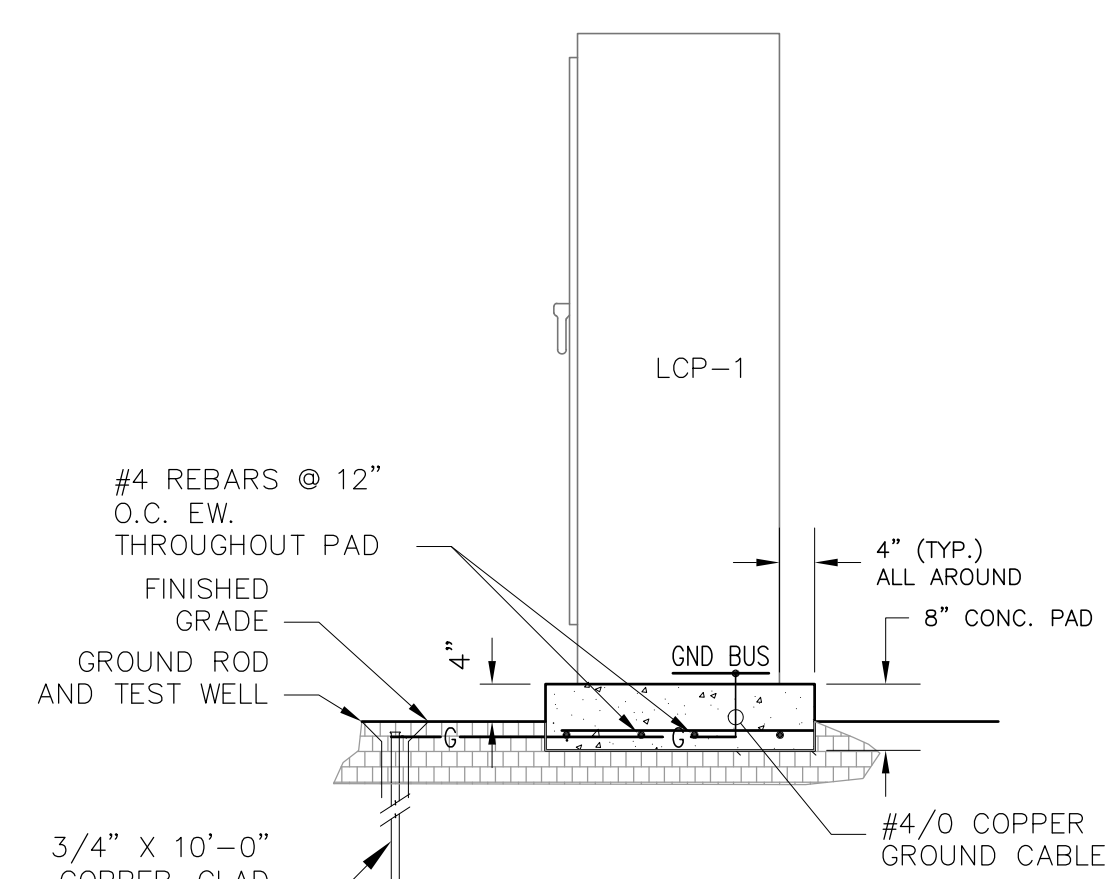
DETAIL C  
NTS



NOTE:  
PVC COATED CONDUIT BENDS AND FITTINGS SHALL BE USED WHERE CONCEALED CONDUIT RUNS ARE STUBBED UP FROM THE SLAB. RISERS ON POLES SHALL BE PVC COATED RGS INCLUDING WEATHERHEADS.

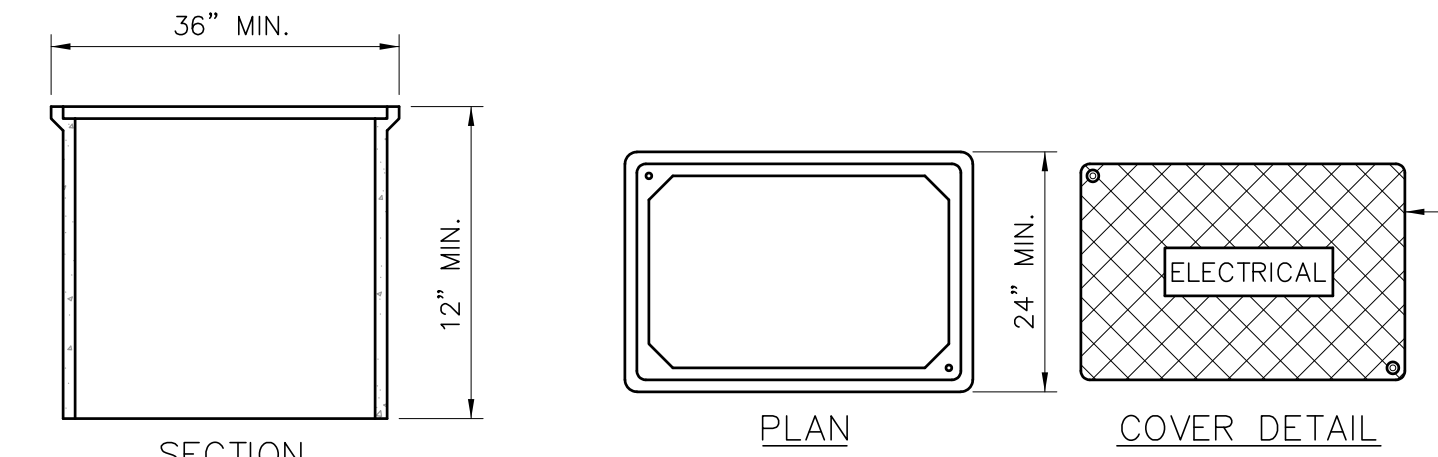
CONDUIT STUB-UP DETAIL

DETAIL D  
NTS



LCP-1 CONCRETE PAD

SECTION J  
NTS

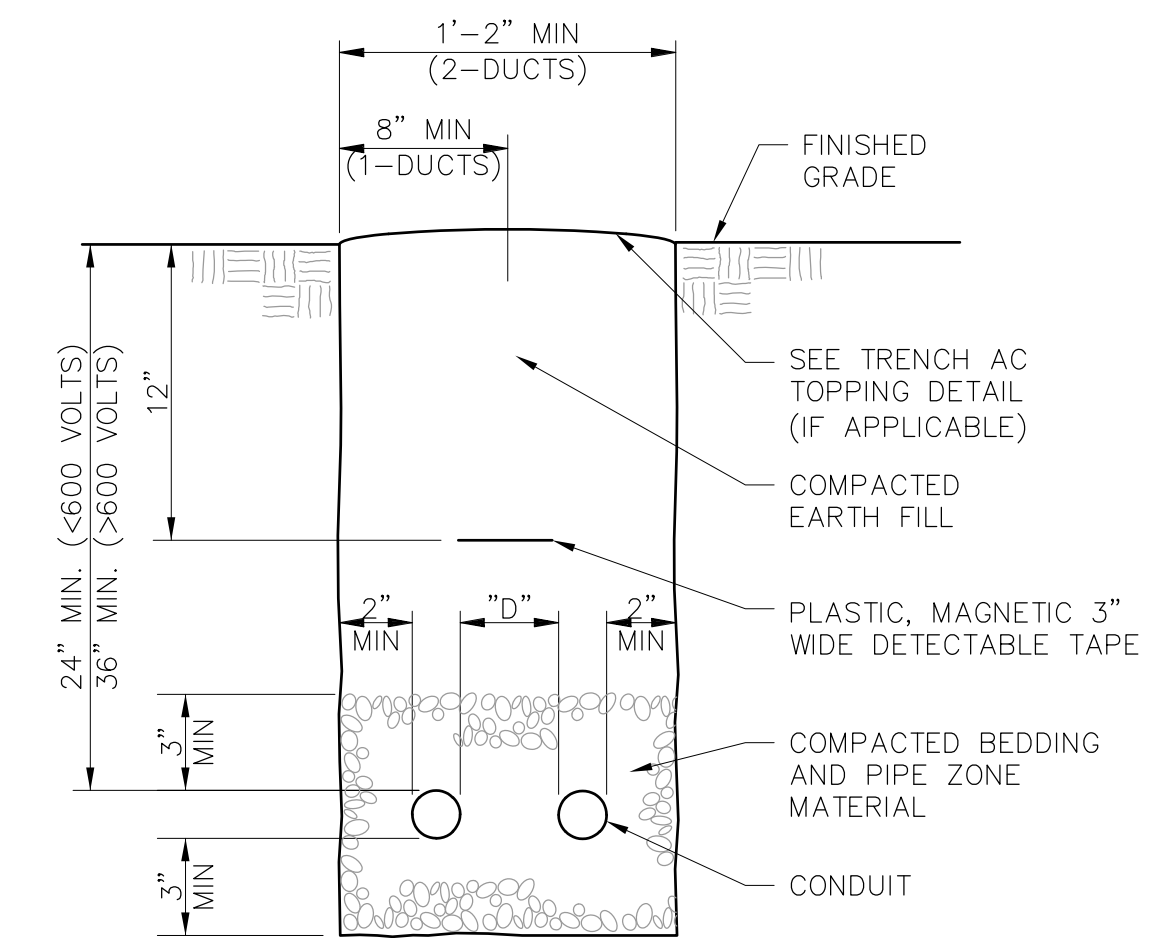


NOTES:

1. CONCRETE PULLBOXES SHALL CONSIST OF PRECAST REINFORCED CONCRETE BOXES, EXTENSIONS, BASES, AND COVERS.
2. THE AREA WHERE THIS PULLBOX WILL BE LOCATED WILL BE PAVED, THEREFORE THE TOP OF PULLBOX COVERS SHALL BE APPROXIMATELY 1/2" ABOVE THE FINISHED GRADE.

TRAFFIC-RATED CONCRETE PULLBOX

DETAIL E  
NTS



NOTES:  
1. INSTALLATION OF DIRECT BURIAL DUCT BANKS WHICH INCLUDE TWO OR LESS CONDUITS SHALL BE MADE IN ACCORDANCE WITH THIS DETAIL.

TRENCH AND CONDUIT PLACEMENT

DETAIL K  
NTS

PRELIMINARY - NOT FOR CONSTRUCTION

06/03/2024

DRAWN BY JJI				REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS					
DESIGNED BY FWY		MARK DATE		DESCRIPTION		BY		CHKD. APPROVED		PROJECT SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT		SHEET SR-E-8	
CHECKED BY FWY										SHEET TITLE ELECTRICAL DETAILS		46 OF 48	
										SCALE AS SHOWN		DWG. NO. XXXXXX	

GENERAL INSTRUMENT OR FUNCTION SYMBOLS

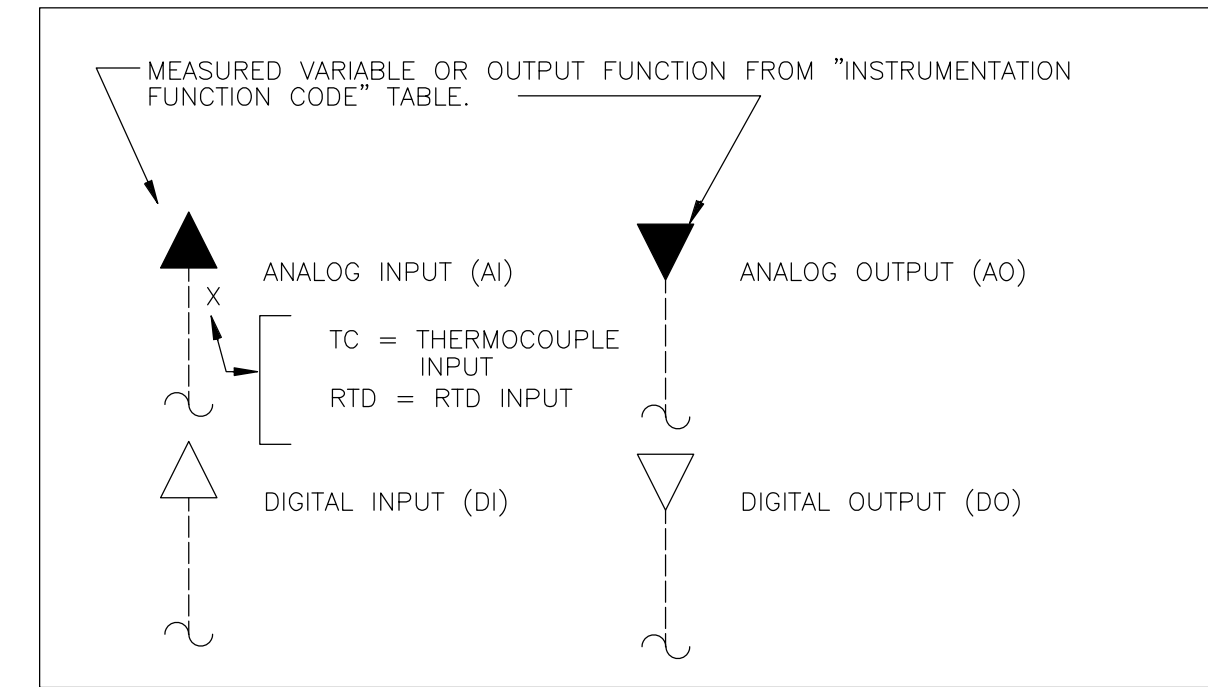
INSTRUMENTATION FUNCTION CODE

I/O SIGNALS

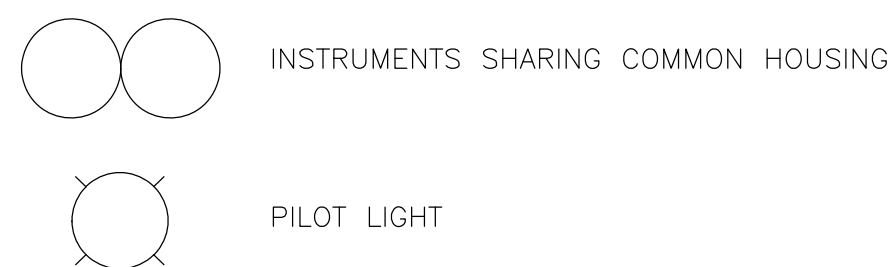
GENERAL NOTES

SHARED DISPLAY/SHARED CONTROL				
PRIMARY CHOICE	SECONDARY CHOICE	COMPUTER SOFTWARE	DISCRETE	LOCATION AND ACCESSIBILITY
				FIELD MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
				PRIMARY CONTROL PANEL MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
				PRIMARY CONTROL PANEL MOUNTED AND NOT NORMALLY OPERATOR ACCESSIBLE
				SECONDARY CONTROL PANEL MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
				SECONDARY CONTROL PANEL MOUNTED AND NOT NORMALLY OPERATOR ACCESSIBLE

	FIRST LETTERS		SUCCEEDING LETTERS		
	COLUMN 1 MEASURED/INITIATING VARIABLE	COLUMN 2 VARIABLE MODIFIER	COLUMN 3 READOUT/PASSIVE FUNCTION	COLUMN 4 OUTPUT/ACTIVE FUNCTION	COLUMN 5 FUNCTION MODIFIER
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	USER'S CHOICE			CONTROL	CLOSED
D	USER'S CHOICE	DIFFERENCE, DIFFERENTIAL			DEVIATION
E	VOLTAGE		SENSOR, PRIMARY ELEMENT		
F	FLOW, FLOW RATE	RATIO			
G	USER'S CHOICE		GLASS, GAUGE, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT		INDICATE		
J	POWER		SCAN		
K	TIME, SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOISTURE				MIDDLE, INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	TORQUE		LIGHT		OPEN
P	PRESSURE		POINT (TEST CONNECTION)		
Q	QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE		
R	RADIATION		RECORD		RUN
S	SPEED, FREQUENCY	SAFETY		SWITCH	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	
V	VIBRATION, MECHANICAL, ANALYSIS			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE		WELL, PROBE		
X	UNCLASSIFIED (1)	X-AXIS	ACCESSORY DEVICES, UNCLASSIFIED (1)	UNCLASSIFIED (1)	UNCLASSIFIED (1)
Y	EVENT, STATE, PRESENCE	Y-AXIS		AUXILIARY DEVICES	
Z	POSITION, DIMENSION	Z-AXIS, SAFETY INSTRUMENT SYSTEM		DRIVER, ACTUATOR, UNCLASSIFIED, FINAL CONTROL ELEMENT	



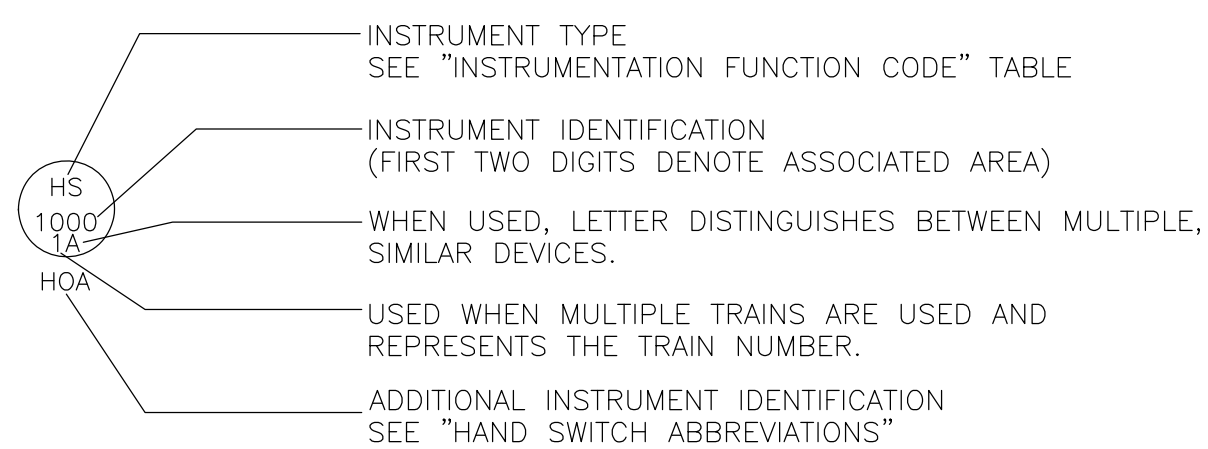
- THIS LEGEND APPLIES TO P&IDS ONLY AND MAY DIFFER FROM LEGENDS FOR OTHER SHEETS.
- IN GENERAL THIS LEGEND SHEET AND THE P&IDS ARE BASED ON THE INTERNATIONAL SOCIETY OF AUTOMATION (ISA) STANDARDS FOR PRACTICES FOR INSTRUMENTATION. SOME MODIFICATIONS, ADDITIONS AND ALTERATIONS HAVE BEEN MADE AS REQUIRED TO ACCOMMODATE PROJECT REQUIREMENTS.
- SOME PROCESS ITEMS SUCH AS EQUIPMENT ISOLATION VALVES, BYPASS LINES, ETC., WHICH ARE NOT CRITICAL FOR AN UNDERSTANDING OF THE INSTRUMENTATION FUNCTIONS ARE NOT SHOWN ON THE P&IDS.
- SEE ELECTRICAL AND MECHANICAL SHEETS AND SPECIFICATIONS FOR ADDITIONAL CONTROL AND INTERLOCK REQUIREMENTS.
- LIGHTER WEIGHT LINES, SHOWN AS \_\_\_\_\_, INDICATE EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE EXISTING. HEAVIER LINES, SHOWN AS \_\_\_\_\_, INDICATE EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE NEW. DASHED WEIGHTED LINES, SHOWN AS -----, INDICATED EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE GROUPED AS A PACKAGE.



MISCELLANEOUS SYMBOLS

- MOTOR
- INDICATES INTERLOCK OR LOGIC IN A MOTOR CONTROL CENTER
- INDICATES GENERAL OR MISCELLANEOUS HARDWIRED INTERLOCK
- MOTOR STARTER
- SILICONE CONTROL RECTIFIER
- VARIABLE FREQUENCY DRIVE
- PURGE OR FLUSHING DEVICE

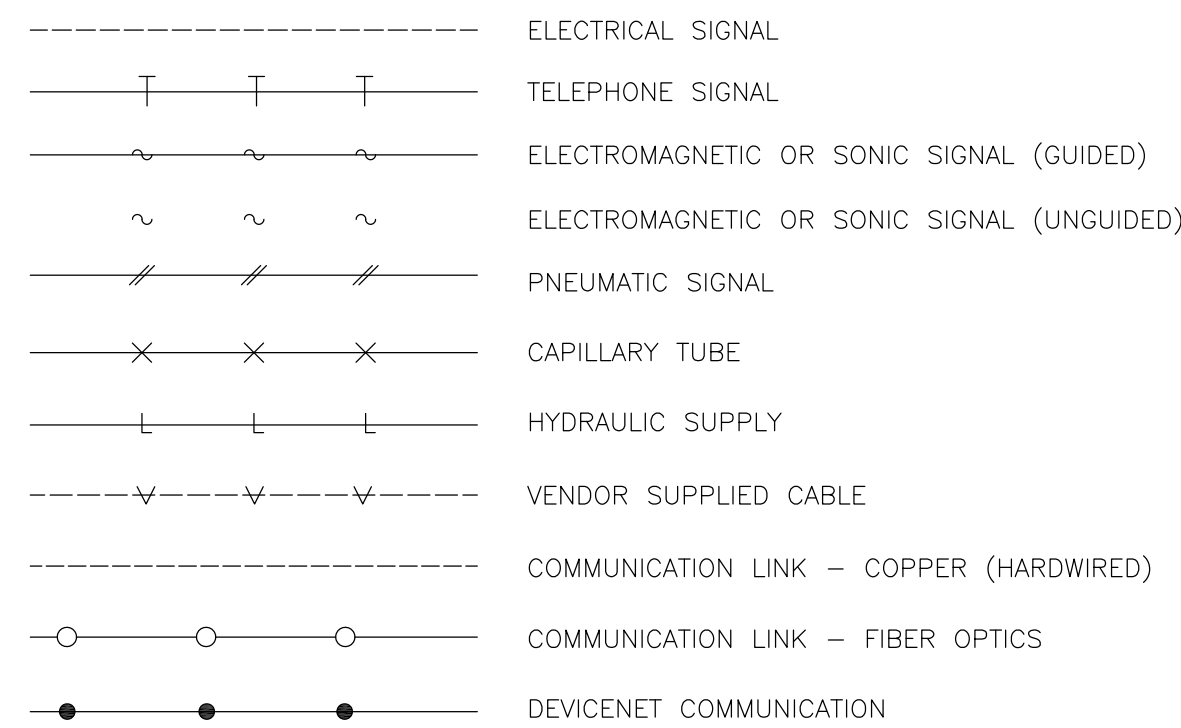
TYPICAL TAG NUMBERS & DESIGNATION



HAND SWITCH ABBREVIATIONS

- AO = AUTO/OFF
- AM = AUTO/MANUAL
- CM = COMPUTER/MANUAL
- CL = COMPUTER/LOCAL
- E-STOP = EMERGENCY STOP
- FR = FORWARD/REVERSE
- FOR = FORWARD/OFF/REVERSE
- FS = FAST SLOW
- FOS = FAST/OFF/SLOW
- HOA = HAND/OFF/AUTO
- LLS = LEAD/LAG/STANDBY
- LOC = LOCAL/OFF/COMPUTER
- LOL = LOCAL/OFF/REMOTE
- LOS = LOCKOUT/STOP
- LA = LOCAL/AUTO
- LR = LOCAL/REMOTE
- OC = OPEN/CLOSE
- OCA = OPEN/CLOSE/AUTO
- OO = ON/OFF
- OOA = ON/OFF/AUTO
- OSC = OPEN/STOP/CLOSE
- RSL = RAISE/STOP/LOWER
- SS = START/STOP
- SOR = START/OFF/RESET

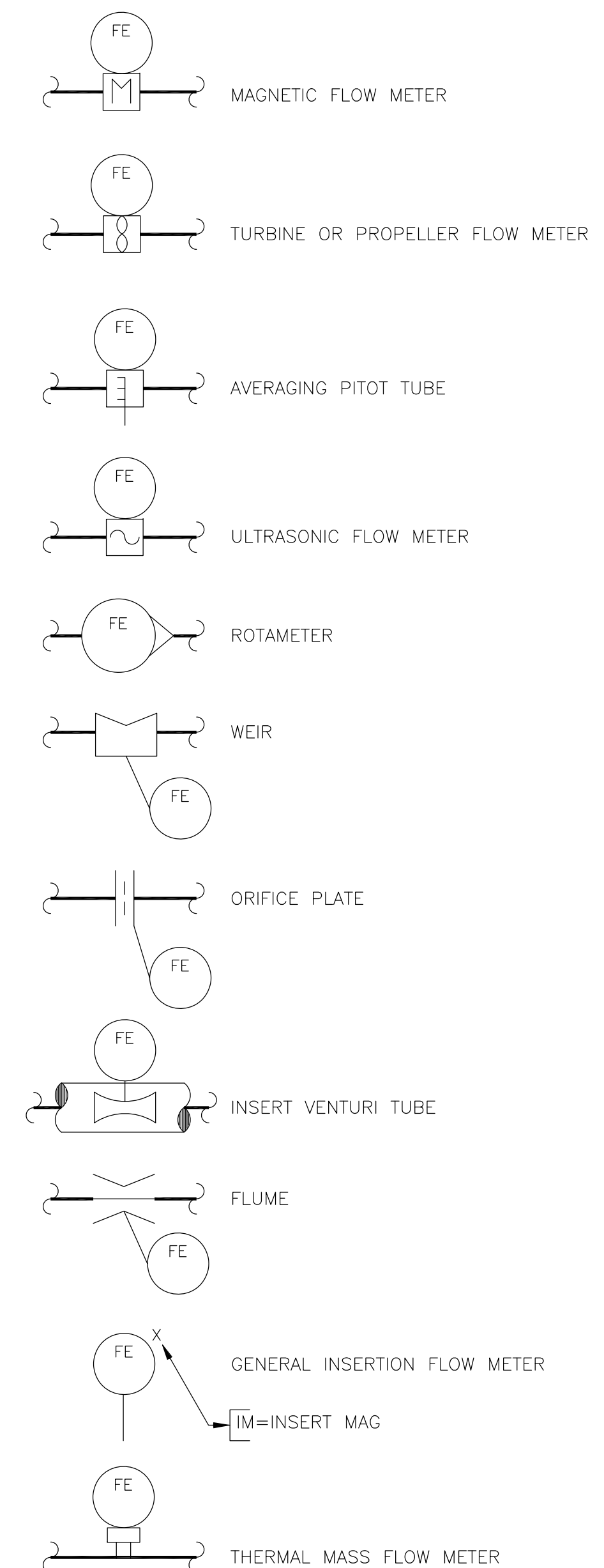
INSTRUMENT LINE SYMBOLS



ELECTRICAL / AIR SOURCES

- UPS ---> UPS POWERED ELECTRICAL SOURCE
- ES ---> ELECTRICAL SOURCE
- IA ---> INSTRUMENT AIR SOURCE

PRIMARY ELEMENTS



GENERAL ABBREVIATIONS

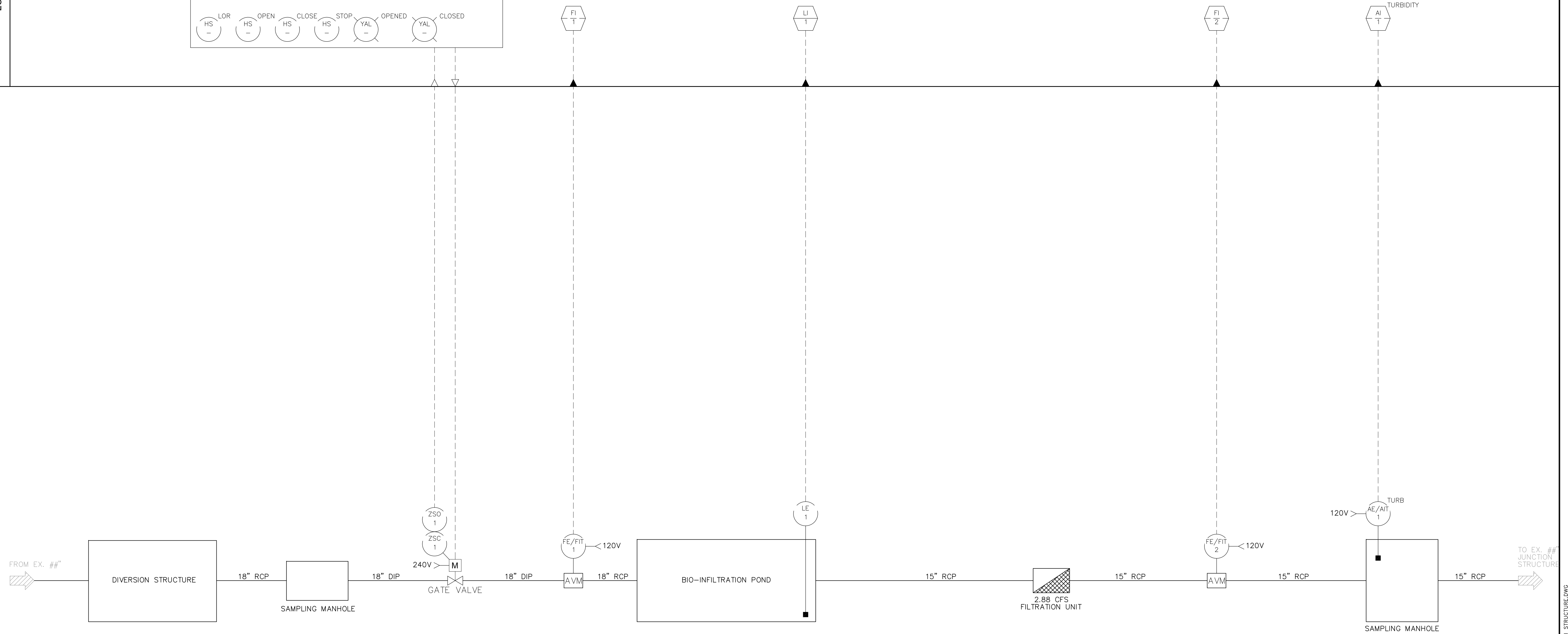
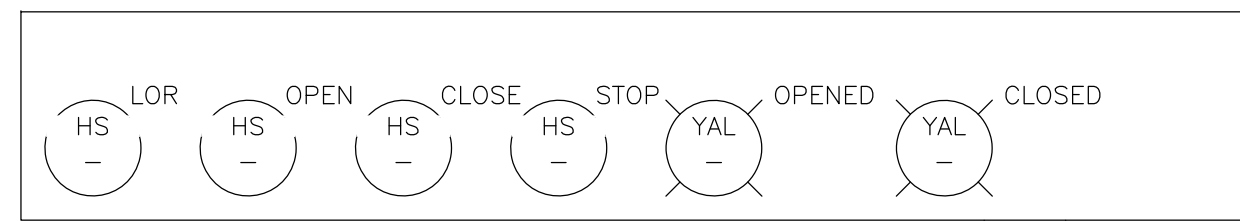
- AI ANALOG IN
- AO ANALOG OUT
- CPU CENTRAL PROCESSOR UNIT
- DI DIGITAL OR DISCRETE INPUT
- DO DIGITAL OUTPUT OR DISSOLVED OXYGEN
- DR DRAIN
- DW DEGRITTED WASTEWATER
- EFE EXCESS FLOW EFFLUENT
- FC FAIL CLOSED OR FINAL CLARIFIER
- FO FAIL OPEN OR FIBER OPTIC
- FOPP FIBER OPTIC PATCH PANEL
- HMI HUMAN MACHINE INTERFACE
- MCC MOTOR CONTROL CENTER
- ML MIXED LIQUOR
- MLSS MIXED LIQUOR SUSPENDED SOLIDS
- NC NORMALLY CLOSED
- NH3 AMMONIA
- NO NORMALLY OPENED
- NPW NON-POTABLE WATER
- NO NORMALLY OPEN
- ORP OXIDATION REDUCTION POTENTIAL
- PE PRIMARY EFFLUENT
- PLC PROGRAMMABLE LOGIC CONTROLLER
- PQM POWER QUALITY MONITORS
- PSD PRIMARY SLUDGE
- PSM PRIMARY SCUM
- PW PLANT WATER
- RAS RETURN ACTIVATED SLUDGE
- RIO REMOTE INPUT/OUTPUT
- RTU REMOTE TERMINAL UNIT
- RW RAW WASTEWATER
- SSE SECONDARY EFFLUENT
- SSM SECONDARY SCUM
- SW SCREENED WASTEWATER
- TSS TOTAL SUSPENDED SOLIDS
- UPS UNINTERRUPTIBLE POWER SUPPLY
- VFD VARIABLE FREQUENCY DRIVE
- LE FLOAT SWITCH
- LE ULTRASONIC LEVEL SENSOR
- LE RADAR LEVEL SENSOR
- LE CAPACITANCE LEVEL SENSOR
- PI PRESSURE GAUGE
- PDI DIFFERENTIAL PRESSURE GAUGE
- TI TEMPERATURE GAUGE
- AE GENERAL ANALYZER

- pH=pH
- DO=DISSOLVED OXYGEN
- H2S=HYDROGEN SULFIDE
- LEL=% LOWER EXPLOSIVE LIMIT
- O2=OXYGEN
- O3=OZONE
- NH3=NITRATE
- TURB=TURBIDITY
- FL=FLUORIDE

**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY	REVISIONS					CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				
	MARK	DATE	DESCRIPTION	BY	CHKD./APPROVED	PROJECT	SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SR-I-1
DESIGNED BY						SHEET TITLE INSTRUMENTATION LEGEND				47 OF 48
CHECKED BY						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.
FWY			AS BUILT							

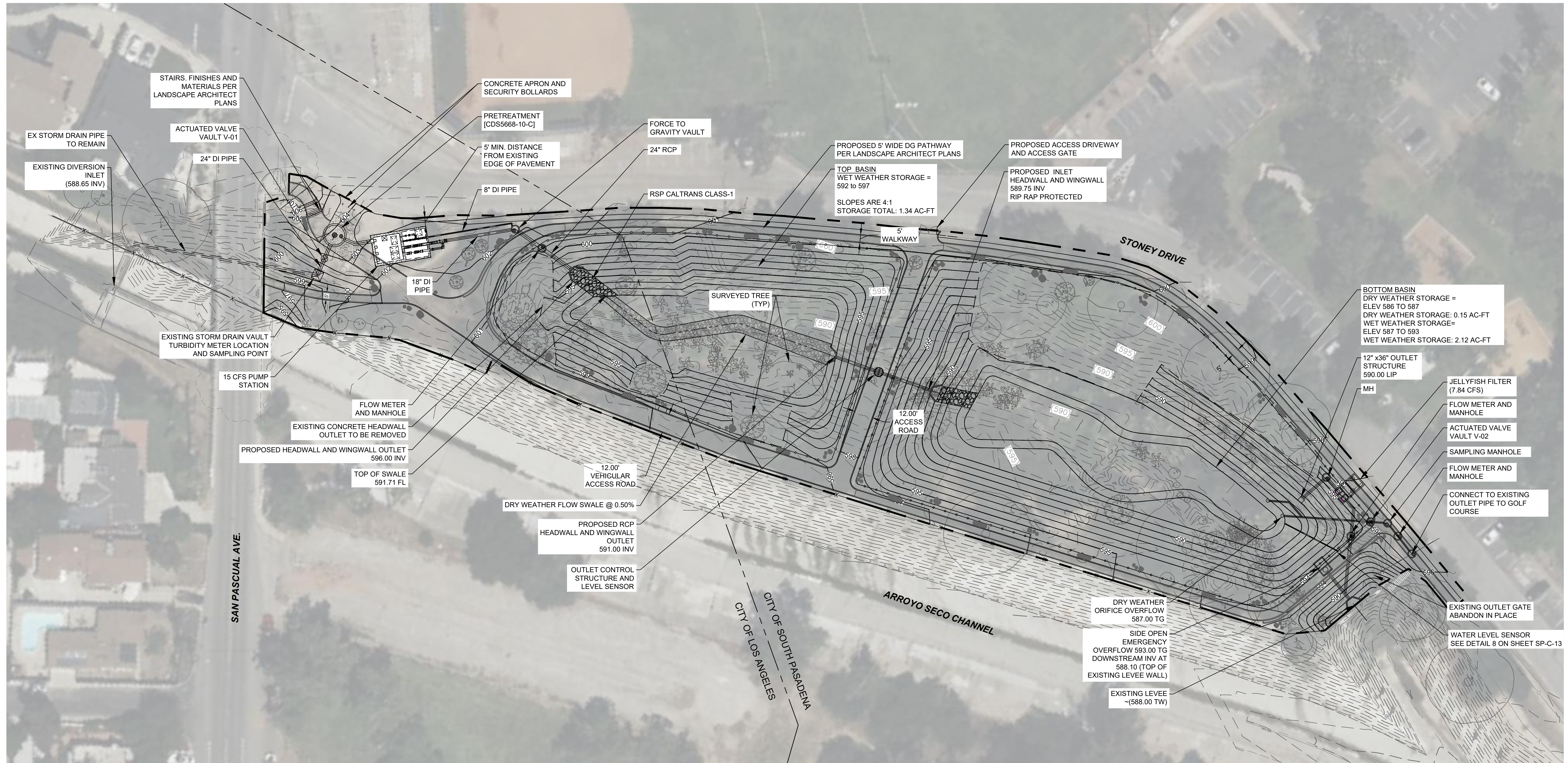
LCP



**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

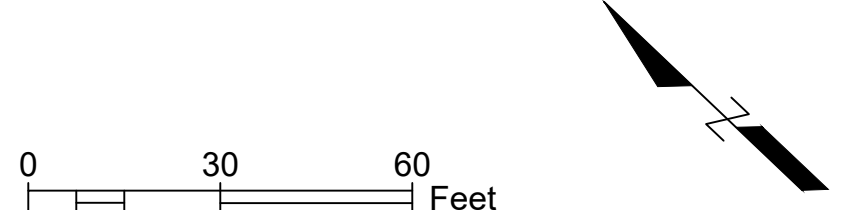
DRAWN BY JJI	REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY FWY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT SAN RAFAEL REGIONAL STORMWATER CAPTURE PROJECT	SHEET <b>SR-I-2</b>
CHECKED BY FWY							SHEET TITLE DIVERSION STRUCTURE	<b>48</b> OF <b>48</b>
			AS BUILT				SCALE AS SHOWN	DWG. NO. ACCOUNT NUMBER XXXXXX

Date: February 28, 2023 C:\WORK\FELIX\GRAFTWATER\SAN RAFAEL\ SHEETS\SR I-2 DIVERSION STRUCTURE.DWG



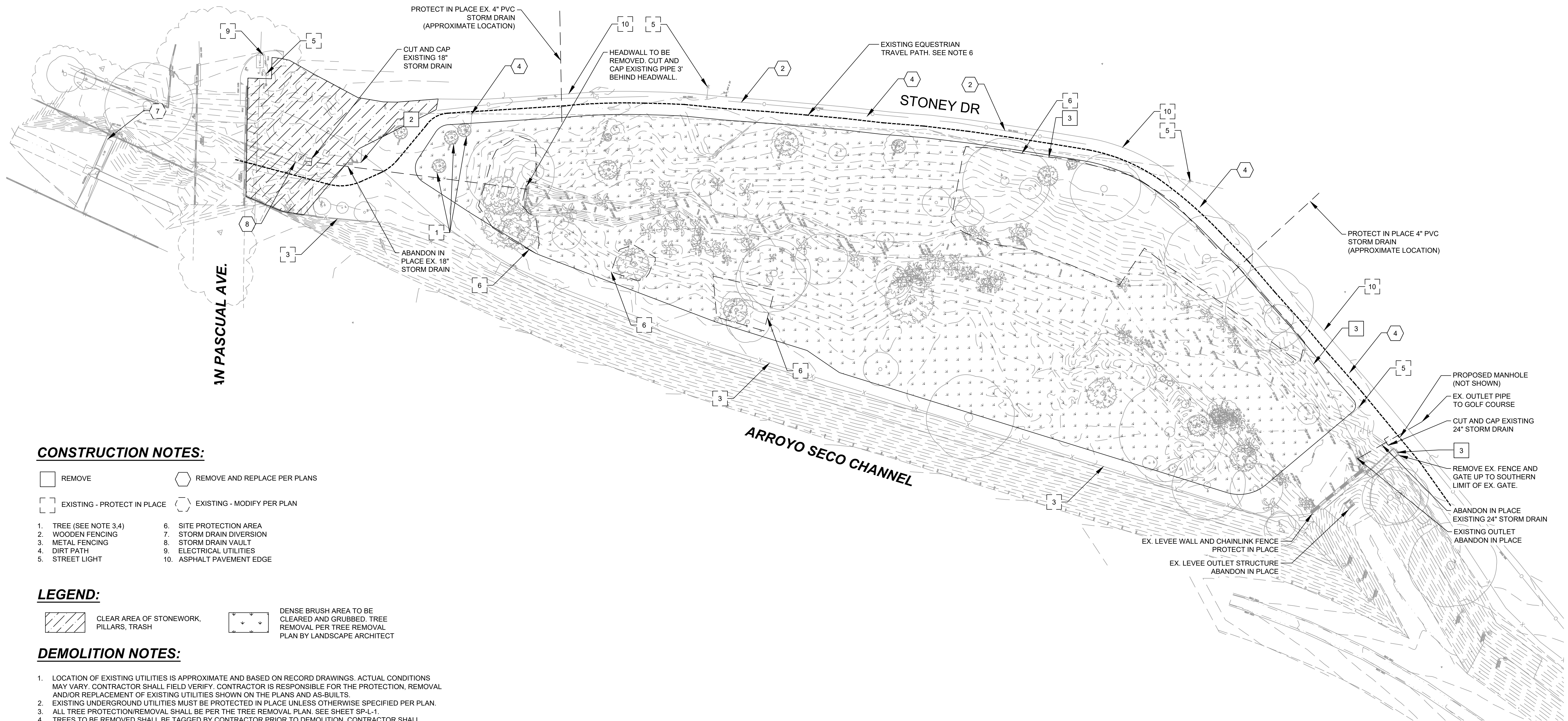
- NOTES:**
- REFER TO LANDSCAPE PLANS FOR SURFACE HARDSCAPE AND SOFTSCAPE MATERIALS, SITE AMENITIES, AND DETAILS.
  - REFER TO TREE DISPOSITION PLANS TO DETERMINE WHICH TREES ARE TO REMAIN AND WHICH ARE TO BE REMOVED.
  - REFER TO HORIZONTAL CONTROL PLAN (SR-C-7) FOR LAYOUT INFORMATION.

**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024



SAN PASCUAL SITE								
DRAWN BY					CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
AMT					ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT			
DESIGNED BY					SHEET <b>SP-C-1</b>			
AMT					52 OF 95			
CHECKED BY					DWG. NO.			
CAS	AS BUILT				SCALE AS SHOWN		ACCOUNT NUMBER XXXXXX	

Date: April 22, 2020 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_PASCUAL\FINAL PLOTS\C2\_SAN\_PASCUAL-SITE.DWG



**CONSTRUCTION NOTES:**

- REMOVE
- REMOVE AND REPLACE PER PLANS
- EXISTING - PROTECT IN PLACE
- EXISTING - MODIFY PER PLAN
- 1. TREE (SEE NOTE 3,4)
- 2. WOODEN FENCING
- 3. METAL FENCING
- 4. DIRT PATH
- 5. STREET LIGHT
- 6. SITE PROTECTION AREA
- 7. STORM DRAIN DIVERSION
- 8. STORM DRAIN VAULT
- 9. ELECTRICAL UTILITIES
- 10. ASPHALT PAVEMENT EDGE

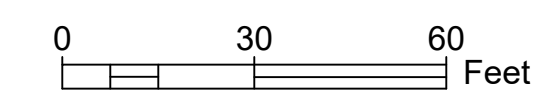
**LEGEND:**

- CLEAR AREA OF STONEMWORK, PILLARS, TRASH
- DENSE BRUSH AREA TO BE CLEARED AND GRUBBED. TREE REMOVAL PER TREE REMOVAL PLAN BY LANDSCAPE ARCHITECT

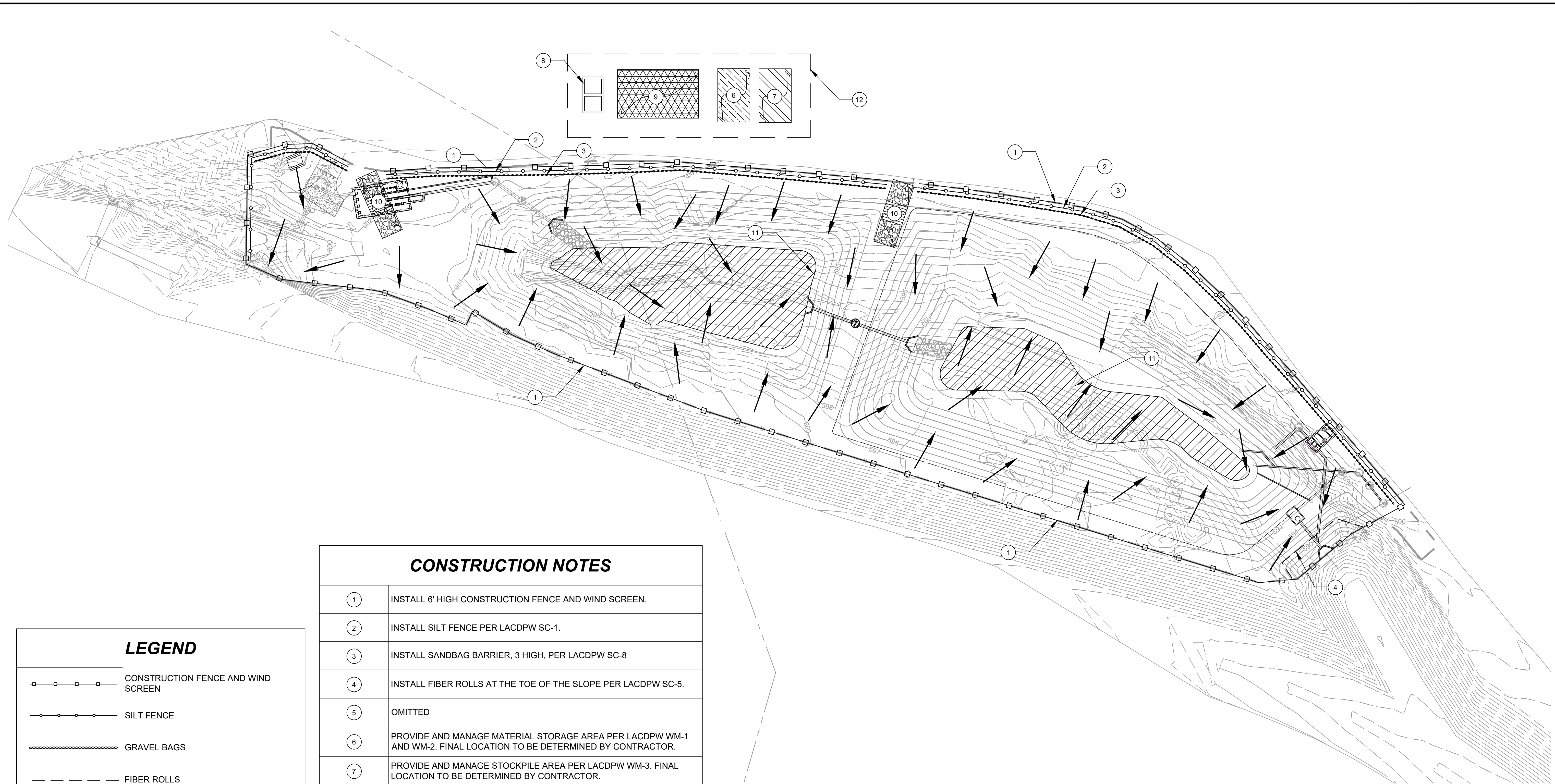
**DEMOLITION NOTES:**

1. LOCATION OF EXISTING UTILITIES IS APPROXIMATE AND BASED ON RECORD DRAWINGS. ACTUAL CONDITIONS MAY VARY. CONTRACTOR SHALL FIELD VERIFY. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION, REMOVAL AND/OR REPLACEMENT OF EXISTING UTILITIES SHOWN ON THE PLANS AND AS-BUILTS.
2. EXISTING UNDERGROUND UTILITIES MUST BE PROTECTED IN PLACE UNLESS OTHERWISE SPECIFIED PER PLAN.
3. ALL TREE PROTECTION/REMOVAL SHALL BE PER THE TREE REMOVAL PLAN. SEE SHEET SP-L-1.
4. TREES TO BE REMOVED SHALL BE TAGGED BY CONTRACTOR PRIOR TO DEMOLITION. CONTRACTOR SHALL REMOVE TREES AFTER APPROVAL FROM THE CITY. NEW TREES SHALL BE INSTALLED PER THE LANDSCAPE PLANTING PLANS.
5. CONTRACTOR TO FIELD VERIFY UTILITY LINES.
6. CONTRACTOR TO ENSURE EQUESTRIAN PATH (INDICATED ON PLANS) REMAINS USABLE THROUGHOUT CONSTRUCTION DURATION TO THE MAXIMUM EXTENT TECHNICALLY FEASIBLE. IT IS RECOMMENDED THAT INSTALLATION OF THE DG PATH ALONG THE FLOOD CHANNEL IS INSTALLED FIRST SO AS TO PROVIDE AN ALTERNATIVE PATH FOR EQUESTRIAN TRAVEL THROUGH THE SITE. CONTRACTOR TO MAKE ACCOMMODATIONS TO CONTROL ACCESS TO AND ALLOW SAFE TRAVEL THROUGH THE SITE SPECIFICALLY FOR EQUESTRIAN TRAVEL.
7. THE DEMOLITION SHOWN ON THE PLANS IS NOT ALL INCLUSIVE OF EVERYTHING NEEDED TO PROPERLY INSTALL THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL REVIEW AS-BUILTS AND PERFORM AN INVESTIGATION OF EXISTING CONDITIONS TO INCLUDE ALL DEMOLITION REQUIRED IN THE BID.
8. THE CONTRACTOR SHALL RESTORE ANY DAMAGED ITEMS DURING CONSTRUCTION TO ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE CITY.

**PRELIMINARY -NOT FOR CONSTRUCTION**  
 06/03/2024



SAN PASCUAL SITE				
DRAWN BY	REVISIONS			CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS
AMT	MARK	DATE	DESCRIPTION	BY
DESIGNED BY				CHKD/
AMT				APPROVED
CHECKED BY				
CAS			AS BUILT	
PROJECT		ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT		
SHEET TITLE		DEMOLITION PLAN		
SCALE		AS SHOWN		
ACCOUNT NUMBER		XXXXXX		
SHEET				SP-C-2
53				OF 95
DWG. NO.				

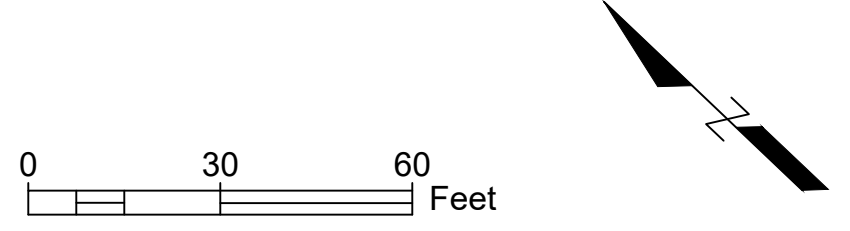


CONSTRUCTION NOTES	
①	INSTALL 6' HIGH CONSTRUCTION FENCE AND WIND SCREEN.
②	INSTALL SILT FENCE PER LACDPW SC-1.
③	INSTALL SANDBAG BARRIER, 3 HIGH, PER LACDPW SC-8
④	INSTALL FIBER ROLLS AT THE TOE OF THE SLOPE PER LACDPW SC-5.
⑤	OMITTED
⑥	PROVIDE AND MANAGE MATERIAL STORAGE AREA PER LACDPW WM-1 AND WM-2. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
⑦	PROVIDE AND MANAGE STOCKPILE AREA PER LACDPW WM-3. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
⑧	PROVIDE AND MANAGE PORTABLE RESTROOMS AND DOUBLE CONTAINMENT PER LACDPW WM-9. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
⑨	PROVIDE AND MANAGE CONSTRUCTION PARKING AREA PER LACDPW NS-8, NS-9, AND NS-10. FINAL LOCATION TO BE DETERMINED BY CONTRACTOR.
⑩	INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT PER LACDPW TC-1.
⑪	ANY PONDED WATER FOLLOWING RAIN EVENT THAT DELAYS CONSTRUCTION ACTIVITIES SHALL BE DEWATERED BY THE CONTRACTOR IN ACCORDANCE WITH APPROPRIATE DEWATERING BMPS (SEE NS-2) AND IN ACCORDANCE WITH LOCAL PERMITS AS APPLICABLE.
⑫	IF ADEQUATE STORAGE SPACE IS NOT AVAILABLE ON-SITE, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND ACQUIRE ADDITIONAL STORAGE SPACE OFF-SITE.

LEGEND	
	CONSTRUCTION FENCE AND WIND SCREEN
	SILT FENCE
	GRAVEL BAGS
	FIBER ROLLS
	STORMWATER FLOW DIRECTION
	CONSTRUCTION EQUIPMENT STORAGE AREA
	MATERIAL STORAGE AREA
	STOCKPILE AREA
	CONSTRUCTION PARKING AREA
	STABILIZED CONSTRUCTION ENTRANCE/EXIT

**NOTES:**  
 1. INSTALL CHAIN LINK FENCE, SILT FENCE, AND SAND BAGS AS SUCH TO ALLOW FOR CONTRACTOR ACCESS CONTROLLED EQUESTRIAN TRAVEL THROUGH THE SITE ALONG THE EXISTING DIRT PATH ON THE SOUTH SIDE OF STONEY DRIVE

**PRELIMINARY -NOT FOR CONSTRUCTION**  
 06/03/2024



DRAWN BY AMT				REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				SAN PASCUAL SITE	
DESIGNED BY AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT				SHEET <b>SP-C-3</b>	
CHECKED BY CAS							SHEET TITLE	EROSION CONTROL PLAN				54 OF 95	
			AS BUILT				SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.		



### LINE AND CURVE TABLE

LINE # / CURVE #	LENGTH	BEARING / DELTA	RADIUS	START NORTHING	START EASTING
CONC C7	7.77	89.02	5.00	1866636.60	6510871.86
CONC C8	7.85	90.00	5.00	1866618.63	6510882.12
CONC C9	13.71	78.56	10.00	1866620.37	6510869.26
CONC C16	14.75	42.25	20.00	1866544.64	6510883.33
CONC C17	11.97	12.47	55.00	1866547.12	6510909.35
CONC C20	25.70	73.62	20.00	1866529.11	6510891.29
CONC L2	8.86	S65° 55' 26.40"E		1866646.16	6510853.61
CONC L4	8.61	S65° 55' 26.40"E		1866646.89	6510854.23
CONC L5	9.43	S65° 55' 26.40"E		1866644.67	6510852.47
CONC L6	9.16	S65° 55' 26.40"E		1866645.42	6510853.03
CONC L7	24.56	S10° 04' 44.78"E		1866629.89	6510846.61
CONC L9	11.98	N76° 28' 45.33"E		1866605.70	6510850.90
CONC L11	6.98	S75° 01' 45.43"W		1866622.18	6510876.00
CONC L12	26.13	N75° 07' 41.82"E		1866629.89	6510846.61
CONC L13	1.27	S9° 01' 48.91"E		1866609.76	6510862.35
DG C1	6.78	28.72	13.53	1866657.08	6510857.71
DG C2	10.05	37.06	15.54	1866647.64	6510854.80
DG C3	23.37	64.54	20.75	1866645.97	6510863.39
DG C4	1.98	3.13	36.28	1866645.97	6510863.39
DG C5	7.58	52.40	8.29	1866640.89	6510860.92
DG C6	15.77	30.11	30.00	1866644.67	6510852.46
DG C10	34.13	9.17	213.28	1866637.12	6510805.58
DG C11	34.64	9.37	211.94	1866639.99	6510808.69
DG C12	50.86	8.58	339.51	1866607.06	6510821.65
DG C13	31.98	5.65	324.44	1866609.42	6510824.89
DG C14	14.28	148.74	5.50	1866584.44	6510844.83
DG C15	20.56	57.46	20.50	1866559.53	6510870.78
DG C18	12.30	34.39	20.50	1866568.23	6510854.43
DG C19	1.19	3.33	20.50	1866530.05	6510892.14
DG C21	55.92	63.44	50.50	1866526.24	6510954.25
DG C22	47.93	50.39	54.50	1866532.41	6510953.59
DG C23	20.57	12.47	94.50	1866488.84	6510883.35
DG C24	49.19	7.38	381.67	1866488.15	6510998.88
DG C25	48.78	7.40	377.67	1866485.48	6510995.91
DG C26	24.36	1.95	714.29	1866469.91	6511015.01
DG C27	24.16	1.95	708.18	1866467.38	6511011.91
DG C28	9.42	128.02	4.21	1866369.29	6511094.00
DG C29	18.01	103.21	10.00	1866360.40	6511079.99
DG C30	9.94	87.65	6.50	1866313.56	6510957.53
DG C31	8.87	129.54	3.93	1866360.64	6511109.63
DG L3	3.78	S38° 13' 53.30"W		1866647.64	6510854.80
DG L8	3.67	S25° 09' 17.32"W		1866644.21	6510862.48
DG L14	17.02	S10° 04' 37.88"E		1866605.79	6510851.40
DG L16	4.00	N48° 54' 41.34"E		1866581.80	6510841.83
DG L17	44.16	S10° 07' 56.58"E		1866608.39	6510862.05
DG L18	5.48	S10° 07' 08.51"E		1866564.92	6510869.82
DG L19	65.63	S10° 04' 37.88"E		1866557.46	6510859.99
DG L20	10.44	S66° 51' 16.48"W		1866534.16	6510901.74
DG L21	4.69	S46° 58' 09.44"E		1866532.41	6510953.59
DG L22	4.06	S43° 01' 56.68"W		1866529.21	6510957.02
DG L23	2.41	N48° 20' 09.79"W		1866524.64	6510956.05
DG L24	9.48	S46° 57' 56.60"E		1866529.21	6510957.02
DG L25	7.13	N46° 58' 00.98"W		1866519.77	6510961.27
DG L26	8.63	S12° 25' 04.20"E		1866492.85	6510871.47
DG L27	16.67	S10° 04' 57.03"E		1866505.25	6510880.44

### LINE AND CURVE TABLE

LINE # / CURVE #	LENGTH	BEARING / DELTA	RADIUS	START NORTHING	START EASTING
DG L28	14.33	S18° 02' 20.27"E		1866484.42	6510873.32
DG L29	21.10	S19° 26' 48.49"E		1866470.80	6510877.76
DG L30	24.86	S37° 39' 29.24"E		1866469.91	6511015.01
DG L31	24.29	N37° 39' 29.24"W		1866447.73	6511027.07
DG L32	25.40	S39° 12' 58.08"E		1866450.23	6511030.20
DG L33	25.42	N39° 13' 00.15"W		1866428.04	6511043.14
DG L34	23.64	S38° 20' 59.25"E		1866430.55	6511046.26
DG L35	23.59	N38° 20' 59.24"W		1866409.54	6511057.78
DG L36	111.82	S22° 33' 19.03"E		1866469.14	6510889.12
DG L37	96.97	S22° 33' 19.03"E		1866450.90	6510884.79
DG L38	58.20	S26° 00' 02.22"E		1866365.87	6510932.01
DG L39	63.06	S26° 00' 02.20"E		1866361.34	6510921.98
DG L40	24.23	S38° 12' 58.40"E		1866412.02	6511060.92
DG L41	24.18	N38° 12' 57.22"W		1866390.54	6511072.74
DG L42	18.78	S36° 51' 53.77"E		1866392.98	6511075.91
DG L43	18.72	N36° 51' 52.58"W		1866375.56	6511083.97
DG L44	2.83	S36° 51' 44.70"E		1866377.96	6511087.17
DG L45	8.21	S38° 40' 17.31"E		1866375.69	6511088.87
DG L46	4.00	N53° 08' 07.42"E		1866375.56	6511083.97
DG L47	124.47	N66° 20' 42.15"E		1866310.46	6510965.98
JOIN EX L1	6.90	S48° 03' 49.07"W		1866667.92	6510860.34
JOIN EX L10	24.74	S15° 34' 46.27"E		1866642.63	6510875.43
JOIN EX L15	4.23	S47° 19' 14.19"W		1866639.99	6510808.69
JOIN EX L48	13.37	N38° 17' 23.97"W		1866360.64	6511109.63

### LEGEND

- LIMIT OF WORK
- FENCING
- PROPERTY LINE / RW
- PROPOSED CONCRETE FLATWORK
- PROPOSED DECOMPOSED GRANITE PAVEMENT

### ABBREVIATIONS

- CONC CONCRETE
- DG DECOMPOSED GRANITE
- JOIN EX JOIN EXISTING PAVEMENT
- C CURVE
- L LINE

### NOTES

1. HORIZONTAL CONTROL FOR STORMWATER UTILITY COMPONENTS PER SHEET SP-C-7.
2. SITE FURNISHINGS ARE PER LANDSCAPE PLANS.
3. SEE SHEET V-1 FOR BASIS OF BEARINGS AND BENCHMARK INFORMATION.
4. FOR ALL JOIN EX LINES AND CURVES, CURRENT FIELD ALIGNMENT OF EXISTING PAVEMENT SHOULD SUPERSEDE LINE AND CURVE TABLE DATA.

**PRELIMINARY - NOT FOR CONSTRUCTION**  
 06/03/2024

CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				SAN PASCUAL SITE							
DRAWN BY	AMT	REVISIONS	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SHEET	SP-C-4
DESIGNED BY	AMT								ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	55	OF 95
CHECKED BY	CAS				AS BUILT				HORIZONTAL CONTROL PLAN	55	OF 95
									SCALE AS SHOWN	ACCOUNT NUMBER	XXXXXX
										DWG. NO.	

Date: April 22, 2020 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_PASCUAL\_FINAL PLOTS\CX\_SAN\_PASCUAL-HORIZONTAL-CONTROL.DWG

**MATCHLINE SEE SHEET SP-C-5**

MATCHLINE SEE SHEET SP-C-4



LINE AND CURVE TABLE

LINE # / CURVE #	LENGTH	BEARING / DELTA	RADIUS	START NORTHING	START EASTING
CONC C42	16.59	35.88	26.50	1866055.23	6511071.87
CONC L76	70.90	S83° 24' 25.28"E		1866048.45	6511086.72
DG C32	8.88	92.49	5.50	1866297.57	6510963.96
DG C33	11.46	75.71	8.67	1866351.67	6511102.90
DG C34	44.17	23.52	107.59	1866229.05	6511175.55
DG C35	45.91	23.57	111.59	1866229.62	6511179.51
DG C36	48.21	10.82	255.26	1866181.53	6511181.56
DG C37	47.49	10.83	251.26	1866181.67	6511177.56
DG C38	25.05	2.31	620.47	1866156.65	6511176.45
DG C39	10.05	71.95	8.01	1866047.26	6511157.96
DG C40	25.49	57.26	25.50	1866069.26	6511069.63
DG C41	24.49	57.26	24.50	1866063.98	6511067.77
DG C43	11.68	76.64	8.73	1866033.62	6511164.02
DG L49	4.00	N63° 51' 22.68"E		1866288.34	6510957.64
DG L50	140.32	N66° 20' 42.15"E		1866297.57	6510963.96
DG L51	1.00	N36° 36' 39.42"W		1866354.03	6511106.13
DG L52	4.00	N53° 50' 37.55"E		1866351.67	6511102.90
DG L53	25.70	N36° 36' 47.52"W		1866331.05	6511118.23
DG L54	25.70	S36° 36' 39.42"E		1866354.03	6511106.13
DG L55	25.22	N35° 09' 42.76"W		1866310.43	6511132.75
DG L56	25.32	S35° 09' 46.67"E		1866333.41	6511121.46
DG L57	25.01	S34° 28' 47.91"E		1866312.71	6511136.04
DG L58	24.97	N34° 28' 48.20"W		1866289.84	6511146.89
DG L59	23.85	S34° 00' 35.82"E		1866292.09	6511150.20
DG L60	23.78	N34° 00' 33.79"W		1866270.13	6511160.19
DG L61	246.01	S26° 08' 37.32"E		1866290.10	6510961.23
DG L62	268.11	S26° 08' 37.32"E		1866304.66	6510949.63
DG L63	25.25	S2° 32' 13.12"W		1866181.53	6511181.56
DG L64	24.47	S6° 00' 57.94"W		1866156.30	6511180.44
DG L65	24.45	N6° 00' 54.45"E		1866132.33	6511173.89
DG L66	24.56	N4° 40' 59.66"E		1866107.85	6511171.89
DG L67	24.59	S4° 41' 00.79"W		1866131.97	6511177.87
DG L68	25.19	N6° 33' 47.87"E		1866082.83	6511169.01
DG L69	25.19	S6° 33' 47.87"W		1866107.46	6511175.87
DG L70	23.62	N5° 28' 49.08"E		1866059.32	6511166.75
DG L71	11.39	S5° 16' 27.94"W		1866082.44	6511172.99
DG L72	12.24	S5° 16' 23.35"W		1866071.10	6511171.94
DG L73	7.27	N5° 40' 03.05"E		1866052.08	6511166.03
DG L74	68.82	S83° 24' 25.28"E		1866055.16	6511089.59
DG L75	71.05	S83° 24' 25.28"E		1866050.44	6511086.95
DG L77	24.41	S6° 10' 07.84"W		1866058.91	6511170.82
DG L78	54.87	N6° 58' 07.44"E		1865979.16	6511157.37
DG L79	56.36	S6° 59' 02.90"W		1866034.64	6511168.19
JOIN EX L80	4.00	N83° 19' 33.59"W		1865978.69	6511161.34

LEGEND

- LIMIT OF WORK
- FENCING
- PROPERTY LINE / RW
- PROPOSED CONCRETE FLATWORK
- PROPOSED DECOMPOSED GRANITE PAVEMENT

ABBREVIATIONS

- CONC CONCRETE
- DG DECOMPOSED GRANITE
- JOIN EX JOIN EXISTING PAVEMENT
- C CURVE
- L LINE

NOTES

1. HORIZONTAL CONTROL FOR STORMWATER UTILITY COMPONENTS PER SHEET SP-C-7.
2. SITE FURNISHINGS ARE PER LANDSCAPE PLANS.
3. SEE SHEET V-1 FOR BASIS OF BEARINGS AND BENCHMARK INFORMATION.
4. FOR ALL JOIN EX LINES AND CURVES, CURRENT FIELD ALIGNMENT OF EXISTING PAVEMENT SHOULD SUPERSEDE LINE AND CURVE TABLE DATA.

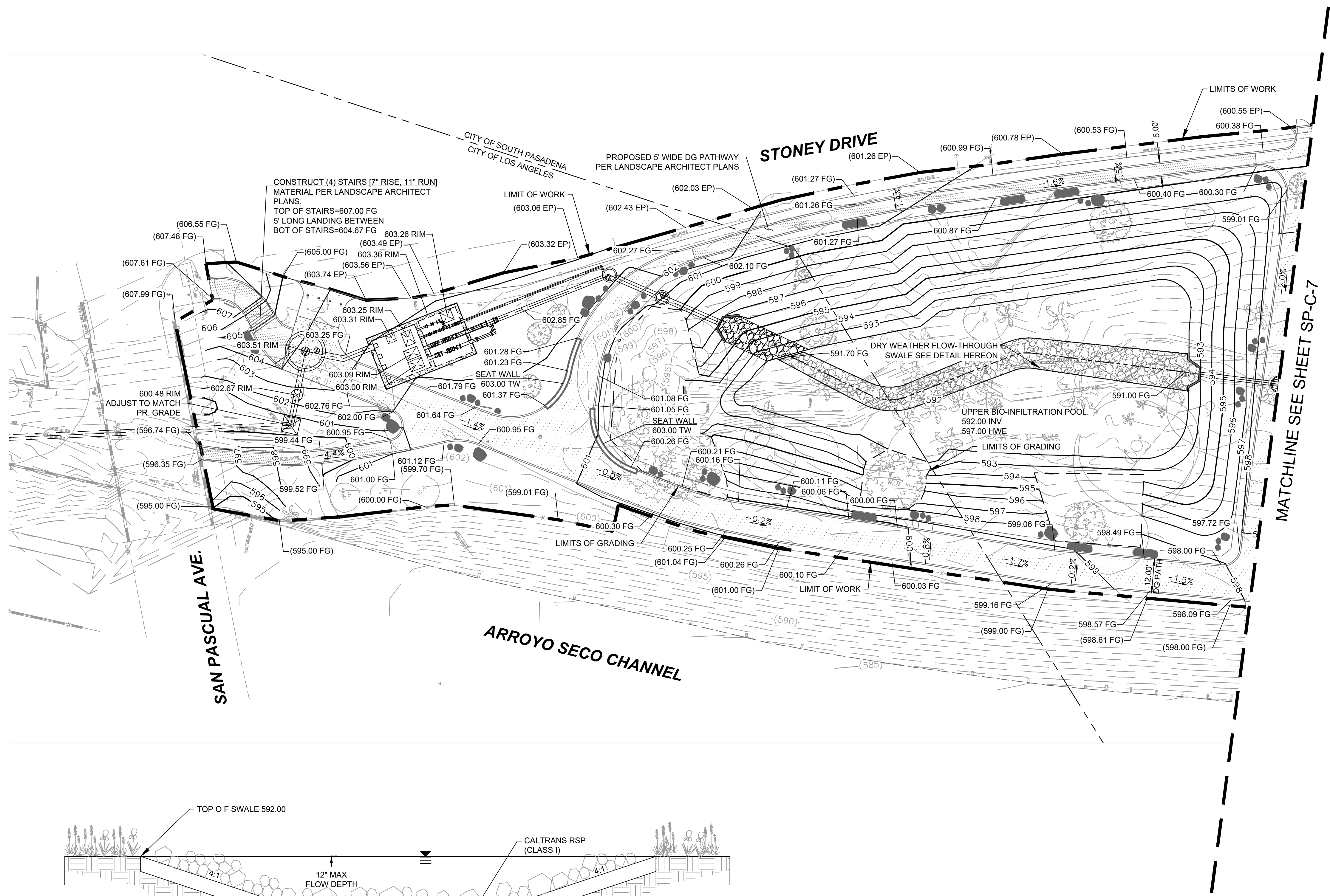
PRELIMINARY - NOT FOR CONSTRUCTION

06/03/2024

SAN PASCUAL SITE

DRAWN BY AMT	REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	SHEET SP-C-5
CHECKED BY CAS							SHEET TITLE HORIZONTAL CONTROL PLAN	55 OF 95
			AS BUILT				SCALE AS SHOWN	DWG. NO. XXXXXX



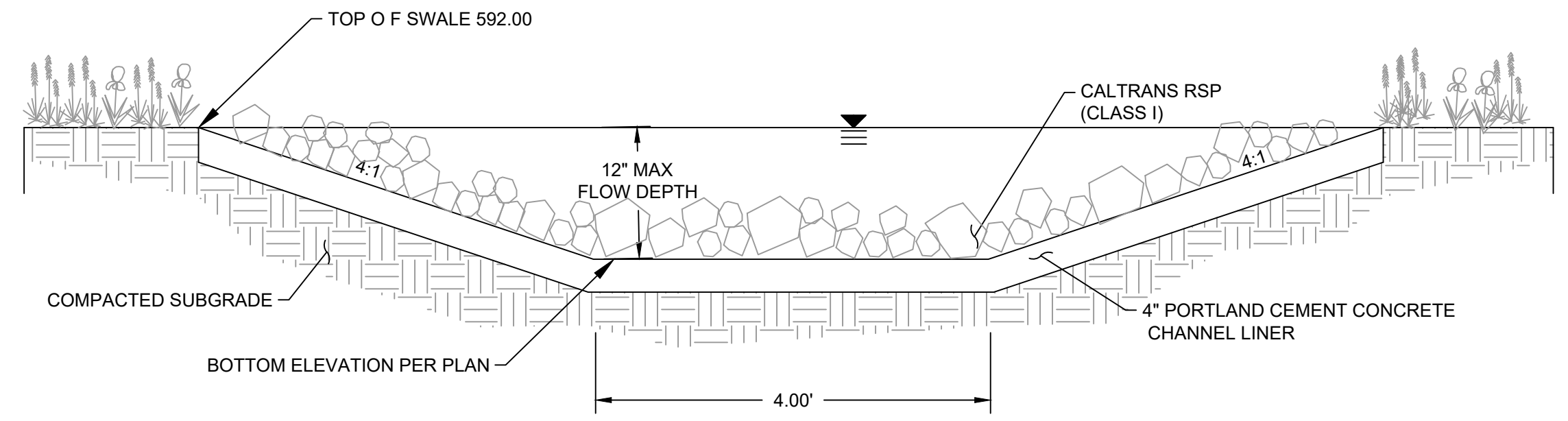


**GRADING NOTES:**

1. PROPOSED GRADING SHALL MATCH EXISTING GRADES AT THE LIMIT OF WORK. WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK AND ENSURE NO PONDING AREAS ARE CREATED.
2. GRADE ALL AREAS TO DRAIN
3. PROPOSED WALKWAYS SHALL BE CONSTRUCTED WITH A CROSS SLOPE OF NO MORE THAN 2.0% AND A LONGITUDINAL SLOPE OF NO MORE THAN 5.0%.
4. CONTRACTORS SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS AND STRUCTURES.
5. CONTRACTOR SHALL ADJUST UTILITY ELEMENTS MEANT TO BE FLUSH WITH GRADE (I.E. UTILITY MANHOLES, CATCH BASINS, ETC.) THAT ARE AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON THE PLANS OR NOT.

**LEGEND & ABBREVIATIONS**

FG	FINISHED GRADE
FS	FINISHED SURFACE
INV	INVERT
XX.XX	PROPOSED ELEVATION
(XX.XX)	EXISTING ELEVATION
S=X.XXXX	PROPOSED SLOPE OF PIPE
(S=X.XXXX)	EXISTING SLOPE OF PIPE
X:X	RATIO SLOPE
MH	MAINTENANCE HOLE
TG	TOP OF GRADE
RIM	MAINTENANCE RIM ELEVATION
X.XX%	GRADE SLOPE
(X.XX%)	EXISTING GRADE SLOPE
---(XX)---	EXISTING CONTOUR
---XX---	PROPOSED CONTOUR



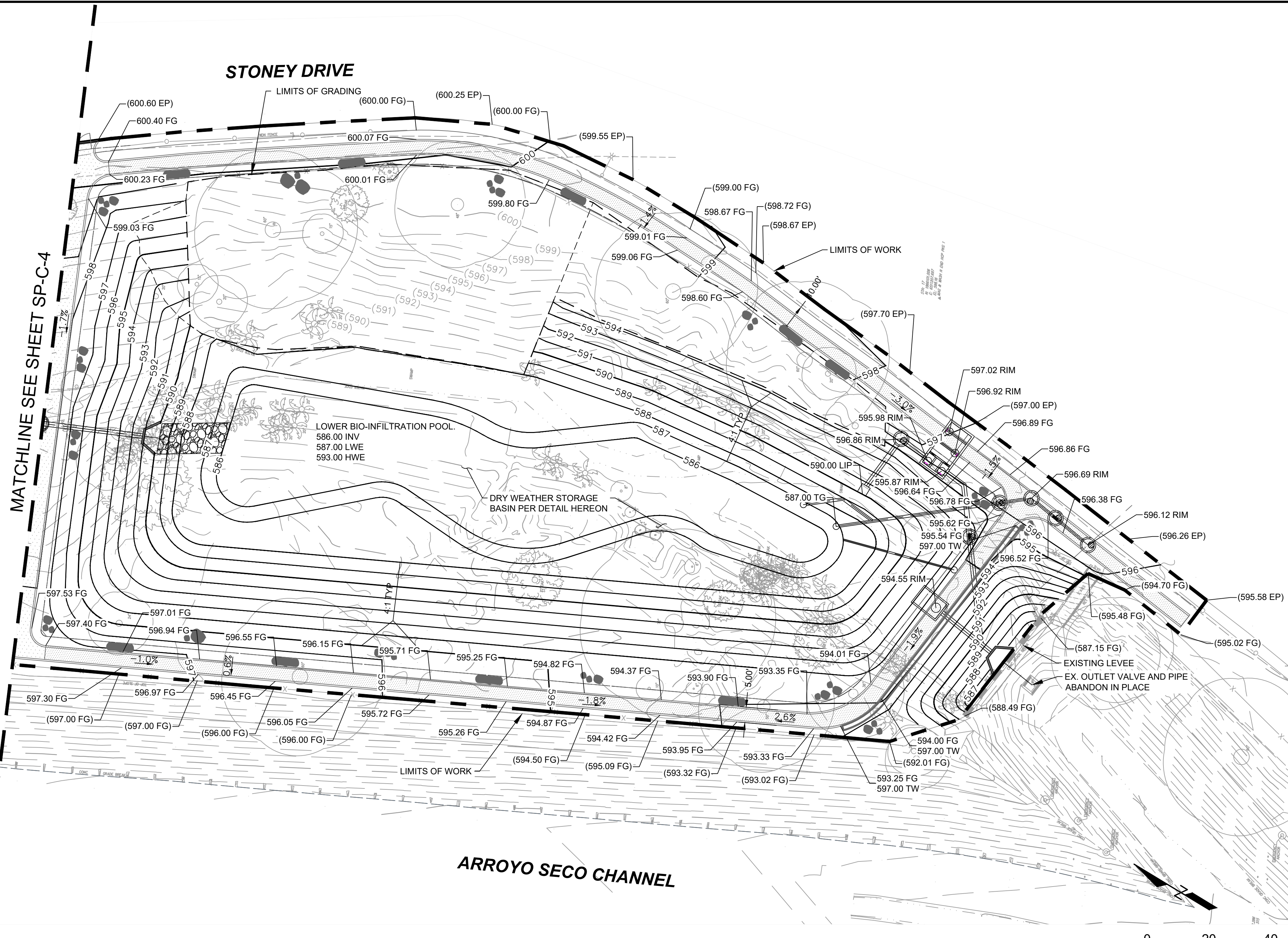
**TYPICAL DRY WEATHER SWALE SECTION**  
SCALE: NTS

**PRELIMINARY - NOT FOR CONSTRUCTION**

06/03/2024

DRAWN BY AMT		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY AMT	CHECKED BY CAS	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	SHEET <b>56</b> OF <b>95</b>
								SHEET TITLE GRADING PLAN	DWG. NO.
								SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX

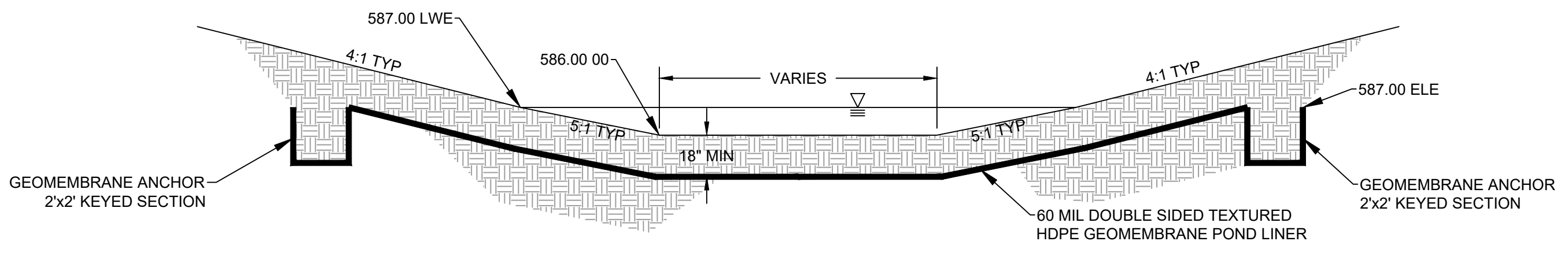
**STONEY DRIVE**



- GRADING NOTES:**
1. PROPOSED GRADING SHALL MATCH EXISTING GRADES AT THE LIMIT OF WORK. WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK AND ENSURE NO PONDING AREAS ARE CREATED.
  2. GRADE ALL AREAS TO DRAIN
  3. PROPOSED WALKWAYS SHALL BE CONSTRUCTED WITH A CROSS SLOPE OF NO MORE THAN 2.0% AND A LONGITUDINAL SLOPE OF NO MORE THAN 5.0%.
  4. CONTRACTORS SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS AND STRUCTURES.
  5. CONTRACTOR SHALL ADJUST UTILITY ELEMENTS MEANT TO BE FLUSH WITH GRADE (I.E. UTILITY MANHOLES, CATCH BASINS, ETC.) THAT ARE AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON THE PLANS OR NOT.

**LEGEND & ABBREVIATIONS**

FG	FINISHED GRADE
FS	FINISHED SURFACE
INV	INVERT
XX.XX	PROPOSED ELEVATION
(XX.XX)	EXISTING ELEVATION
S=X.XXXX	PROPOSED SLOPE OF PIPE
(S=X.XXXX)	EXISTING SLOPE OF PIPE
X:X	RATIO SLOPE
MH	MAINTENANCE HOLE
TG	TOP OF GRADE
RIM	MAINTENANCE RIM ELEVATION
X.XX%	GRADE SLOPE
(X.XX%)	EXISTING GRADE SLOPE
--- (XX) ---	EXISTING CONTOUR
--- XX ---	PROPOSED CONTOUR



**TYPICAL DRY WEATHER STORAGE BASIN SECTION**

SCALE: NTS

EARTHWORK QUANTITIES		
CUT (CY)	FILL (CY)	NET (CY)
3766	2310	1455

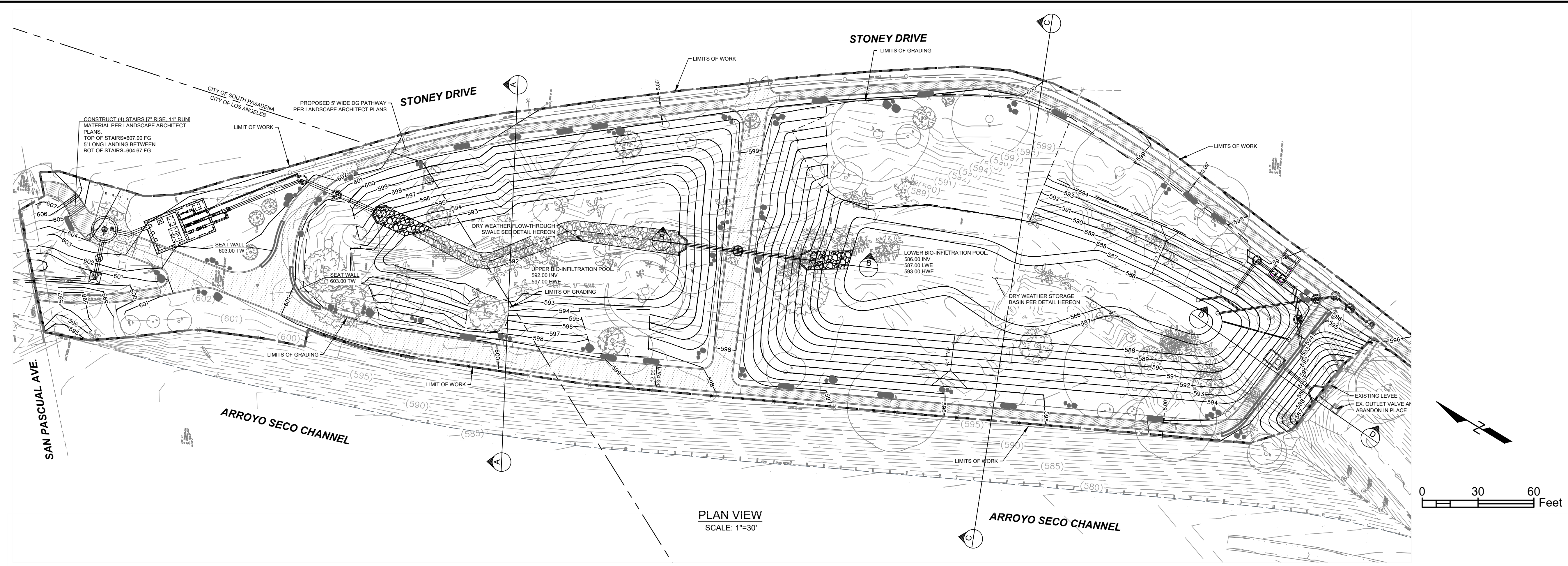
NOTE: CUT/FILL REPORT CONTAINS RAW CALCULATED NUMBERS THAT DO NOT ACCOUNT FOR SHRINKAGE/SWELLING OF SOILS

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06/03/2024

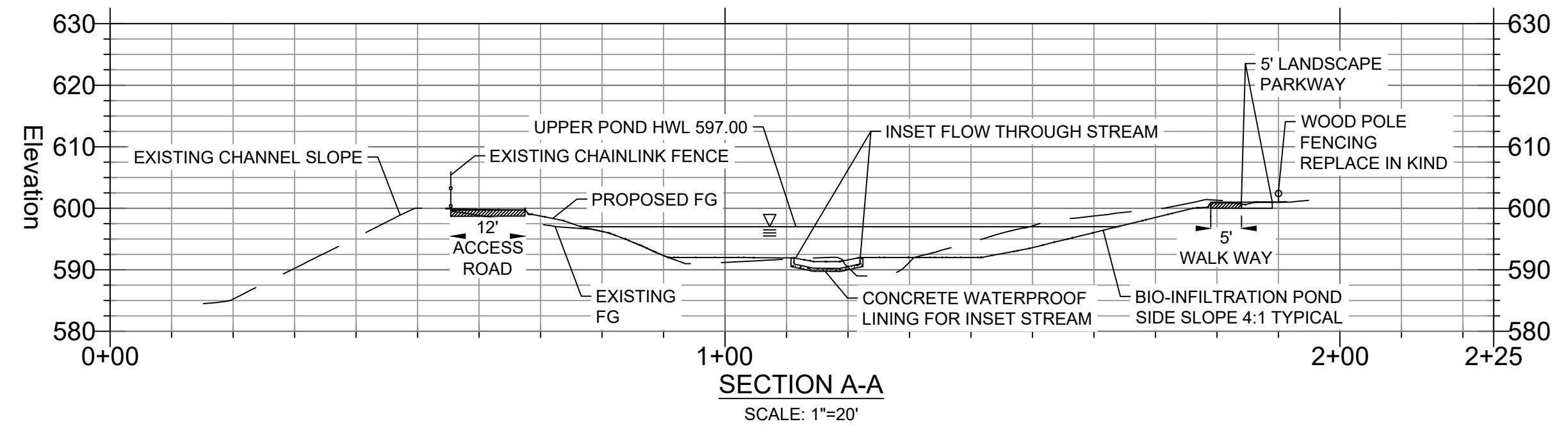
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	MARK	DATE	DESCRIPTION	BY
AMT				
DESIGNED BY				
AMT				
CHECKED BY				
CAS		AS BUILT		

CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT		
SHEET TITLE	GRADING PLAN		
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX

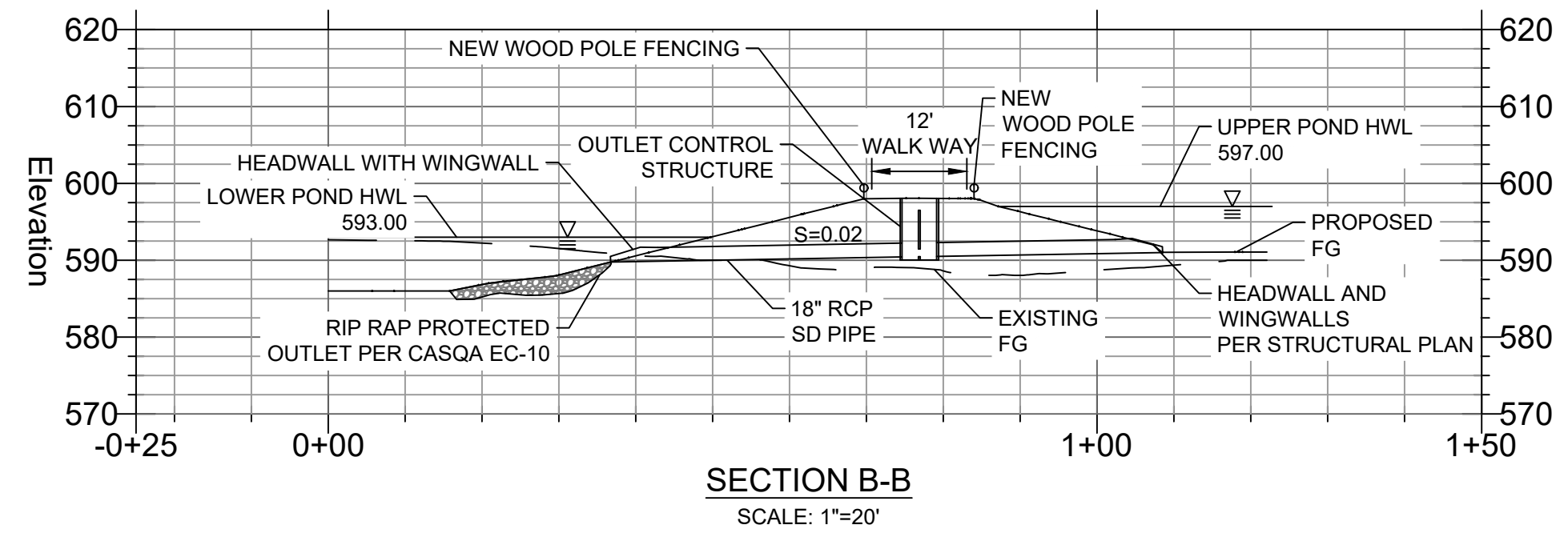
SAN PASCUAL SITE	
SHEET	SP-C-7
	57 OF 95
DWG. NO.	



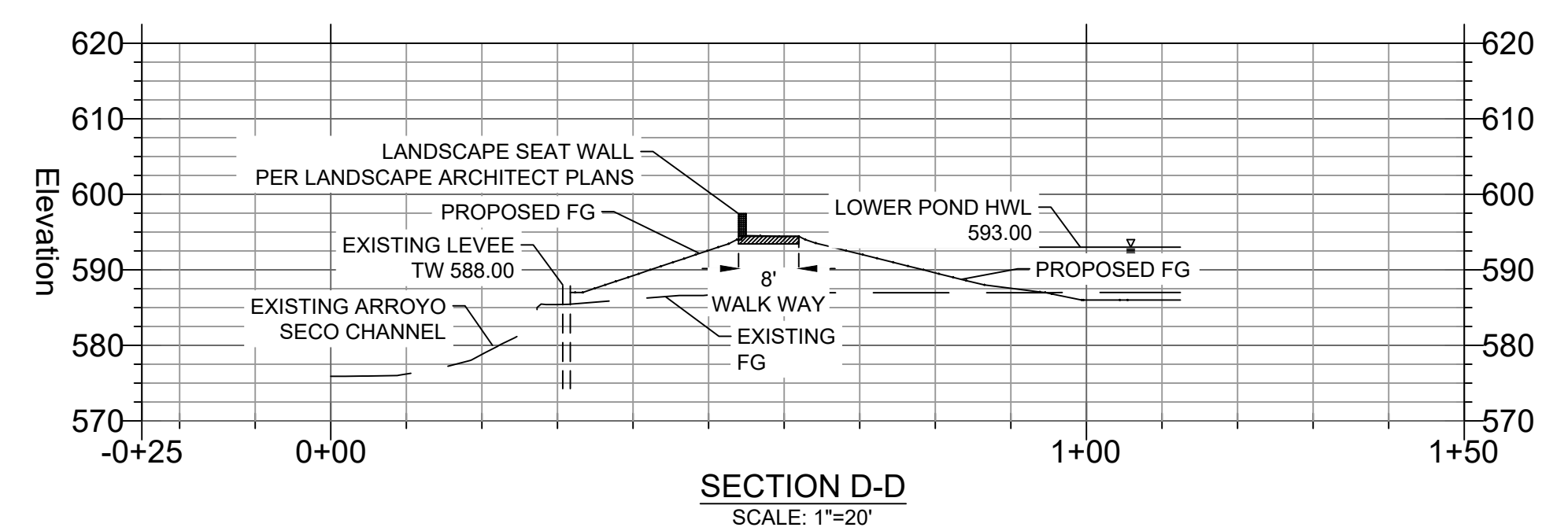
PLAN VIEW  
SCALE: 1"=30'



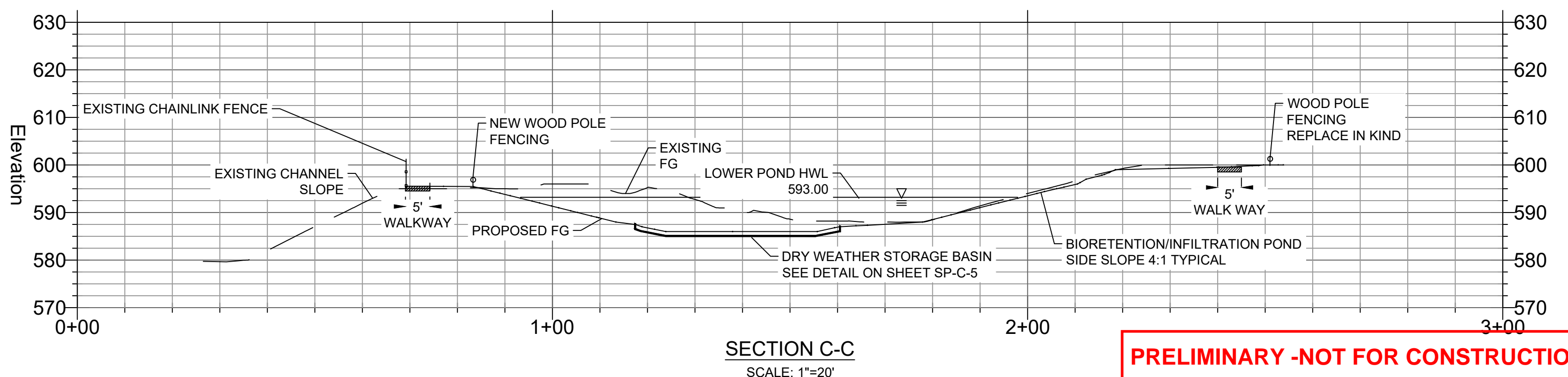
SECTION A-A  
SCALE: 1"=20'



SECTION B-B  
SCALE: 1"=20'



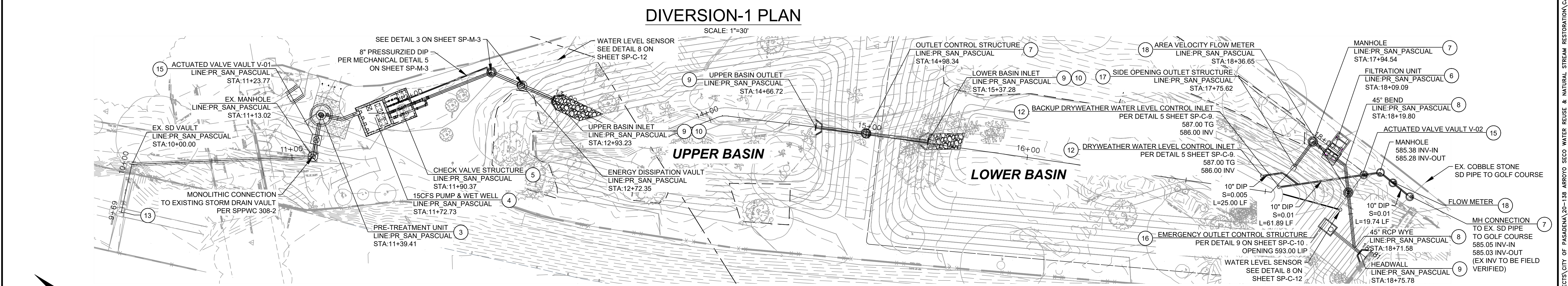
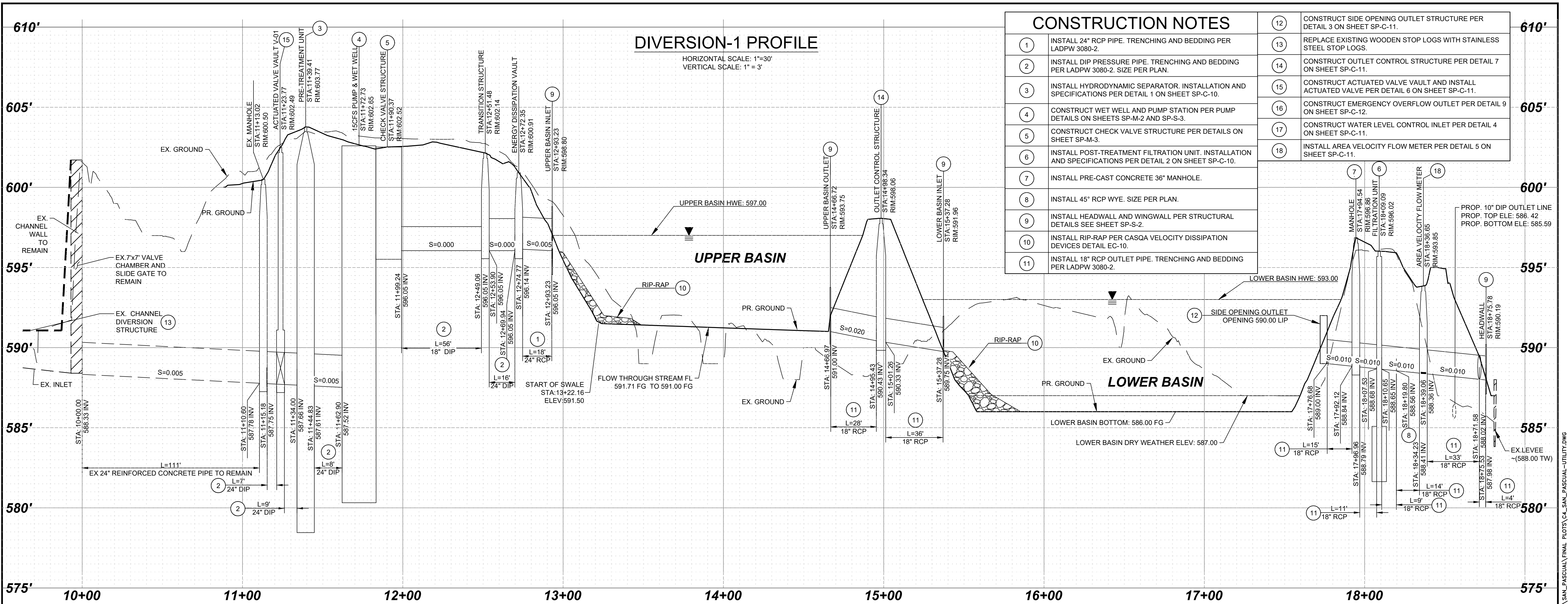
SECTION D-D  
SCALE: 1"=20'



SECTION C-C  
SCALE: 1"=20'

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

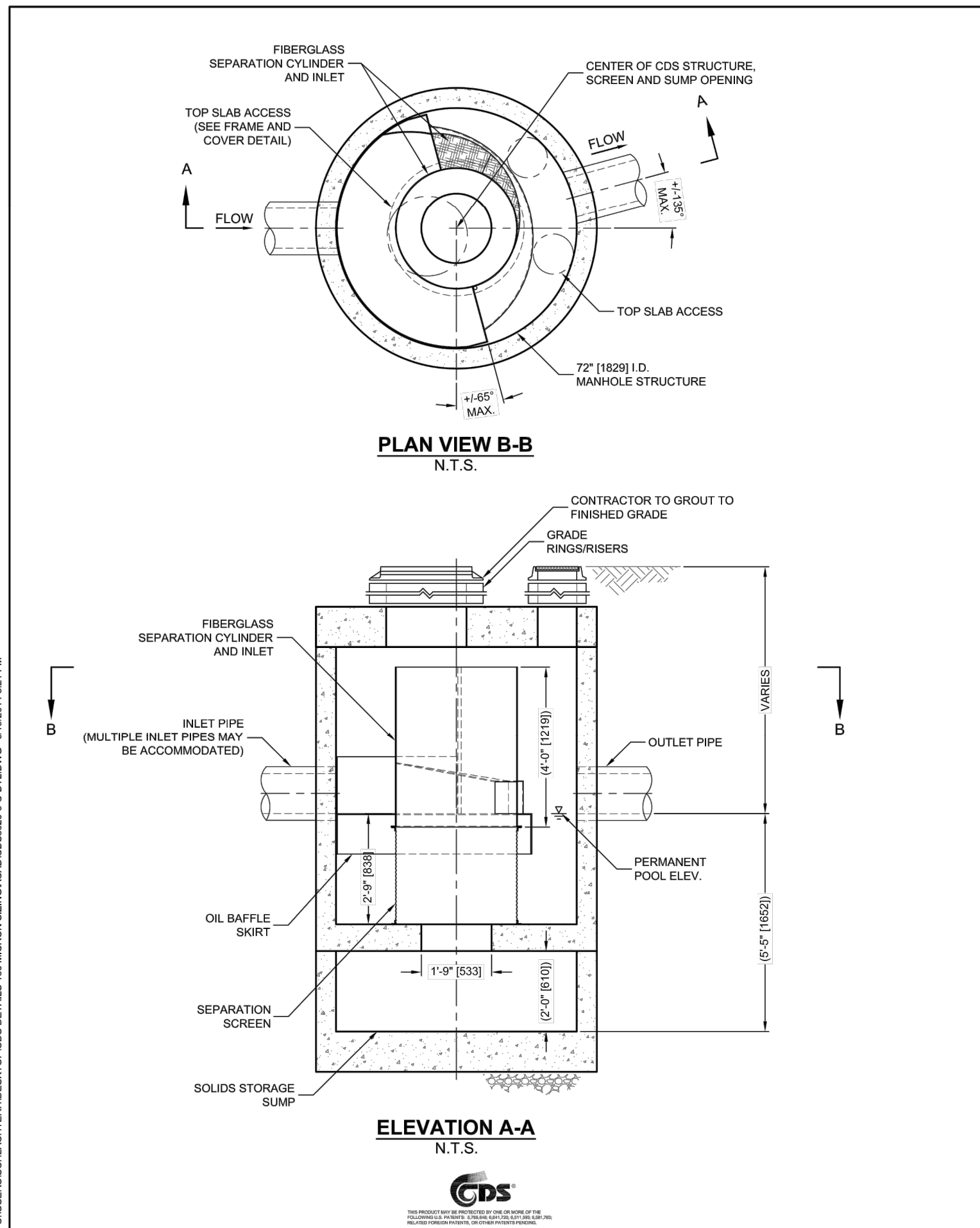
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AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT					SAN PASCUAL SITE				
DESIGNED BY							ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT					SHEET SP-C-8				
AMT							SHEET TITLE					58 OF 95				
CHECKED BY							GRADING SECTION PLAN					DWG. NO.				
CAS			AS BUILT				SCALE AS SHOWN					ACCOUNT NUMBER XXXXXX				



**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY AMT		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY AMT	CHECKED BY CAS	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	SHEET 58 OF 95
		SHEET TITLE UTILITY PLAN				ACCOUNT NUMBER XXXXXX			
		SCALE AS SHOWN				DWG. NO. SP-C-9			

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### CDS3020-6-C DESIGN NOTES

THE STANDARD CDS3020-6-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION	
GRATED INLET ONLY (NO INLET PIPE)	
GRATED INLET WITH INLET PIPE OR PIPES	
CURB INLET ONLY (NO INLET PIPE)	
CURB INLET WITH INLET PIPE OR PIPES	
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)	
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS	

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)	*		
PEAK FLOW RATE (CFS OR L/s)	*		
RETURN PERIOD OF PEAK FLOW (YRS)	*		
SCREEN APERTURE (2400 OR 4700)	*		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

**GENERAL NOTES**

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. [www.contechES.com](http://www.contechES.com)
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO H20 AND CASTINGS SHALL MEET H20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
- PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

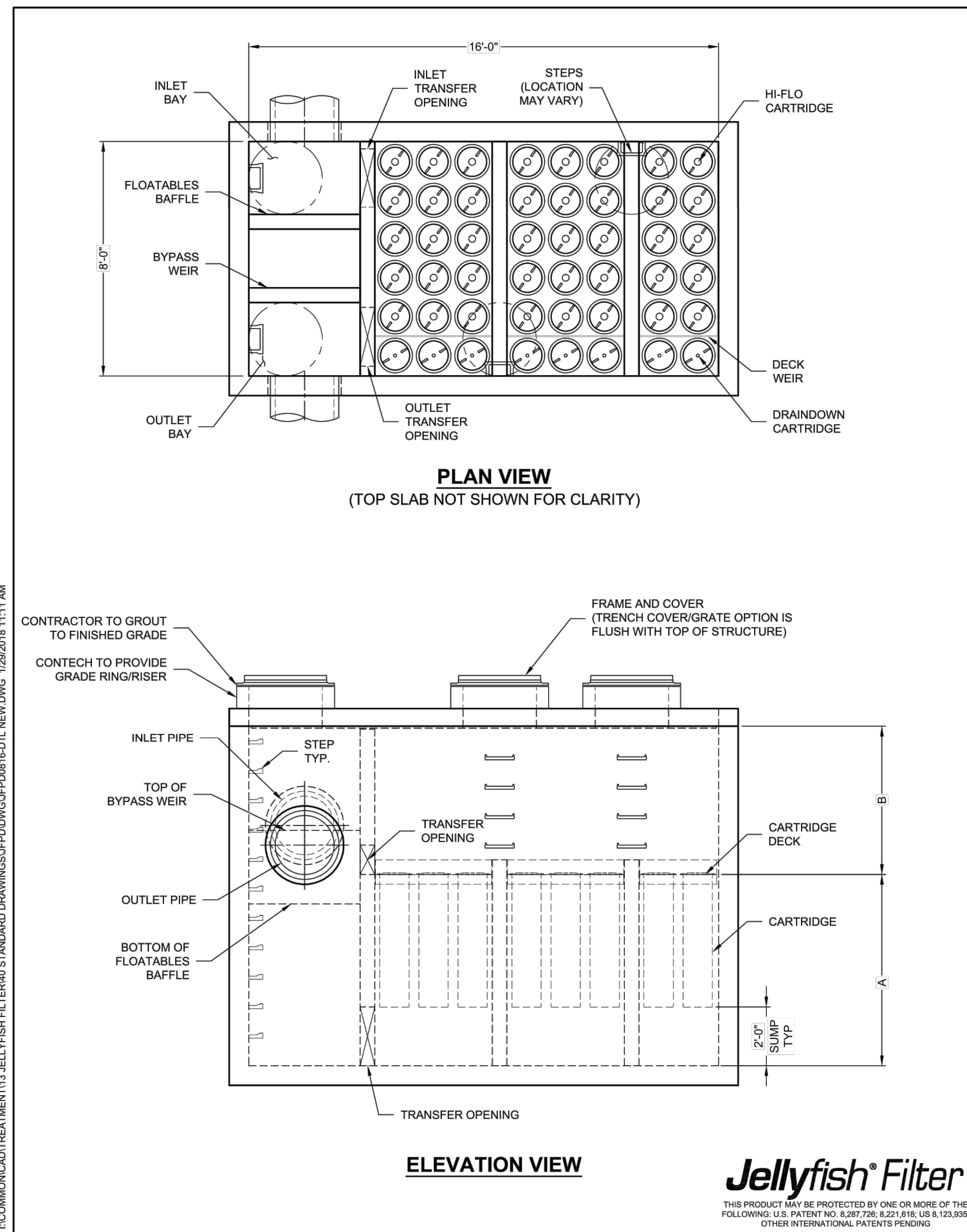
**INSTALLATION NOTES**

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MAN-HOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

**CONTECH**  
ENGINEERED SOLUTIONS LLC  
[www.contechES.com](http://www.contechES.com)  
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45399  
800-338-1122 513-645-7000 513-645-7993 FAX

CDS3020-6-C  
INLINE CDS  
STANDARD DETAIL

1 **HYDRODYNAMIC SEPARATOR**  
SCALE: NTS



### JELLYFISH DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.

CARTRIDGE SELECTION				
CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE H-FLO / DRANDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	7.84	5.98	3.92	2.16
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs)	*		
PEAK FLOW RATE (cfs)	*		
RETURN PERIOD OF PEAK FLOW (yrs)	*		
# OF CARTRIDGES REQUIRED (HF / DD)	*		
CARTRIDGE LENGTH	*		
PIPE DATA	I.E.	MATL	DIA. SLOPE % HGL
INLET #1	*	*	*
INLET #2	*	*	*
OUTLET	*	*	*
SEE GENERAL NOTES 6-7 FOR INLET AND OUTLET HYDRAULIC AND SIZING REQUIREMENTS.			
RIM ELEVATION			*
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

**GENERAL NOTES:**

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. [www.contechES.com](http://www.contechES.com)
- JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO H20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 10' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
- STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-897, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
- OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
- THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
- NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

**INSTALLATION NOTES**

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
- CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERS TOP OR FLEXIBLE BOOT).
- CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

**CONTECH**  
ENGINEERED SOLUTIONS LLC  
[www.contechES.com](http://www.contechES.com)  
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45399  
800-338-1122 513-645-7000 513-645-7993 FAX

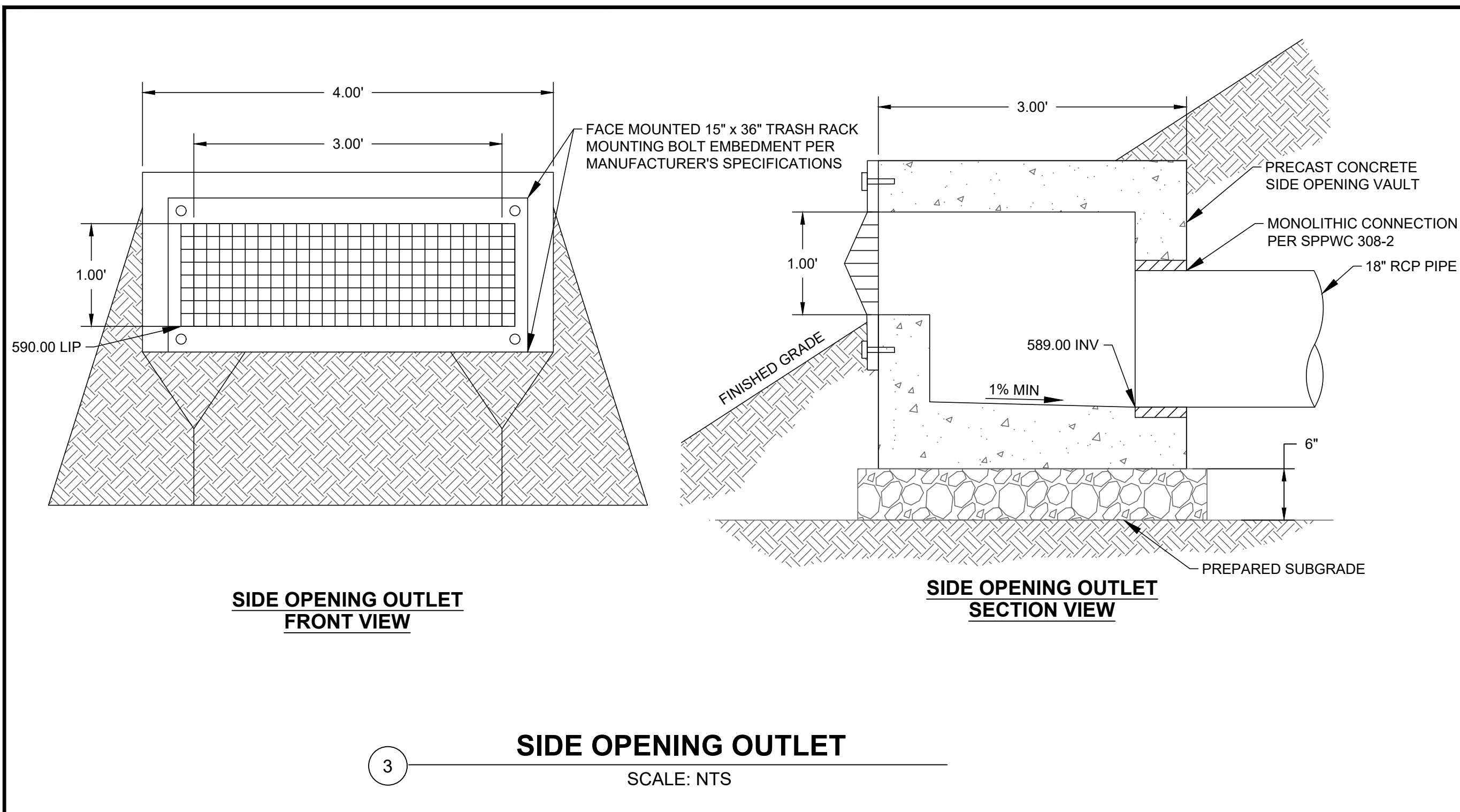
JELLYFISH JFPD0816  
STANDARD DETAIL  
PEAK DIVERSION CONFIGURATION

2 **FILTRATION UNIT**  
SCALE: NTS

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06/03/2024

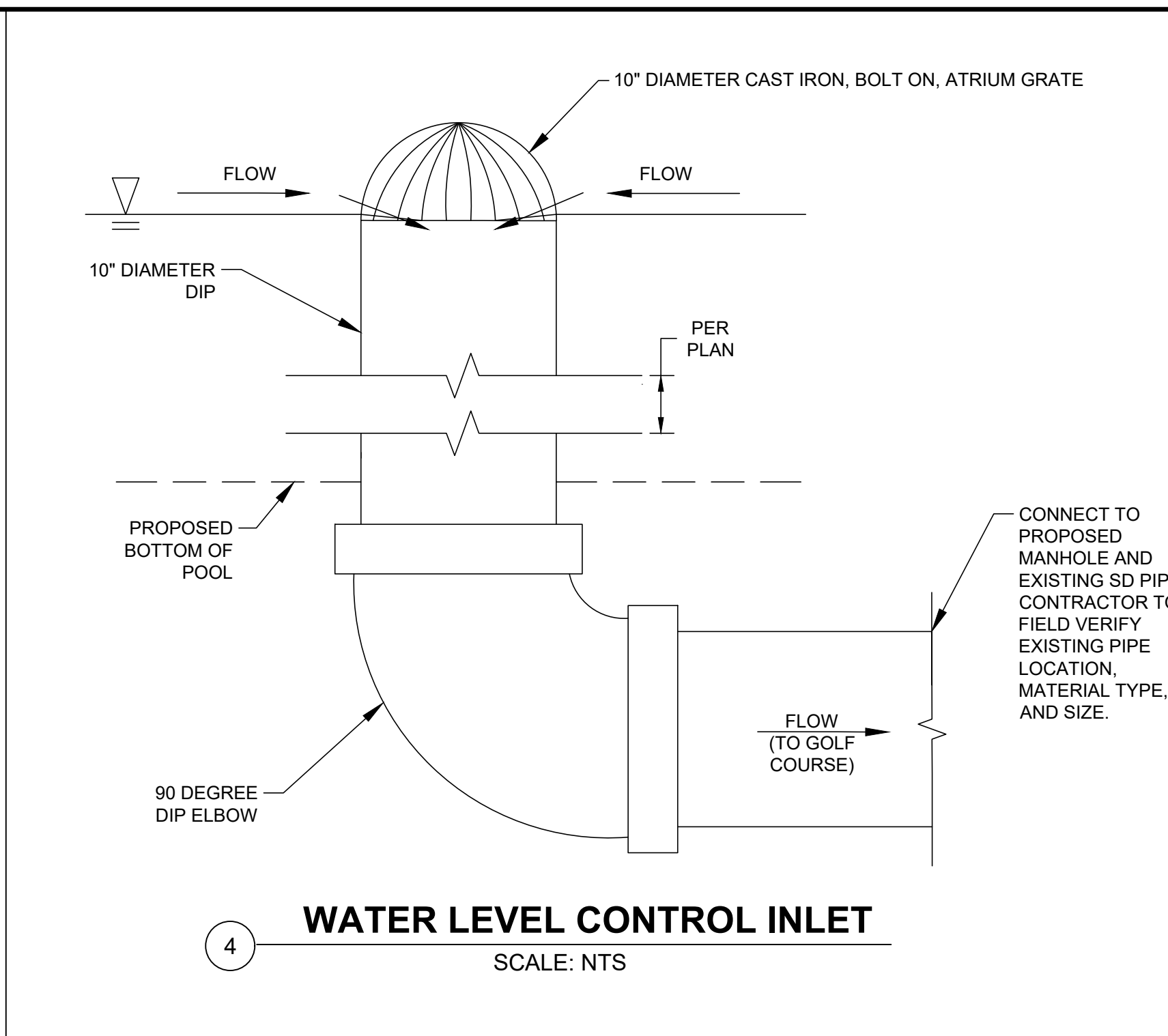
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		MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SHEET
AMT								ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	SP-C-11
DESIGNED BY									
AMT									13 OF 95
CHECKED BY									DWG. NO.
CAS			AS BUILT					SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX

Date: April 22, 2020 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_PASCUAL\FINAL PLOTS\CS\_SAN\_PASCUAL-DETAILS.DWG



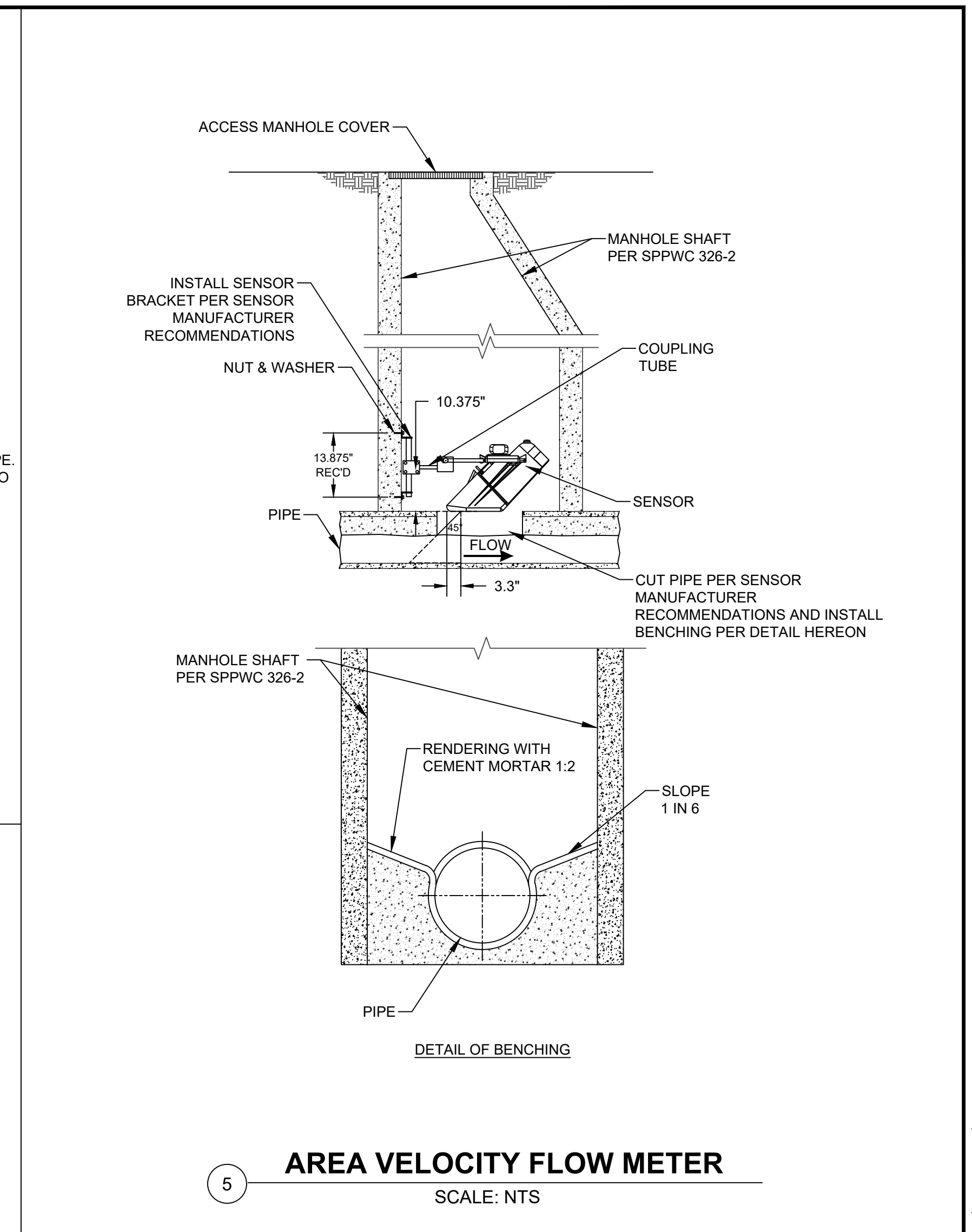
**3 SIDE OPENING OUTLET**

SCALE: NTS



**4 WATER LEVEL CONTROL INLET**

SCALE: NTS

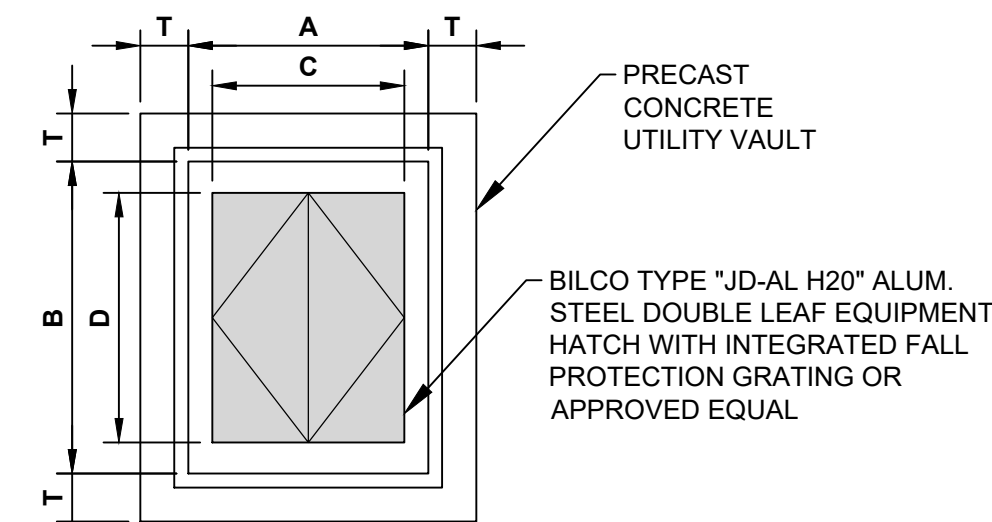


**5 AREA VELOCITY FLOW METER**

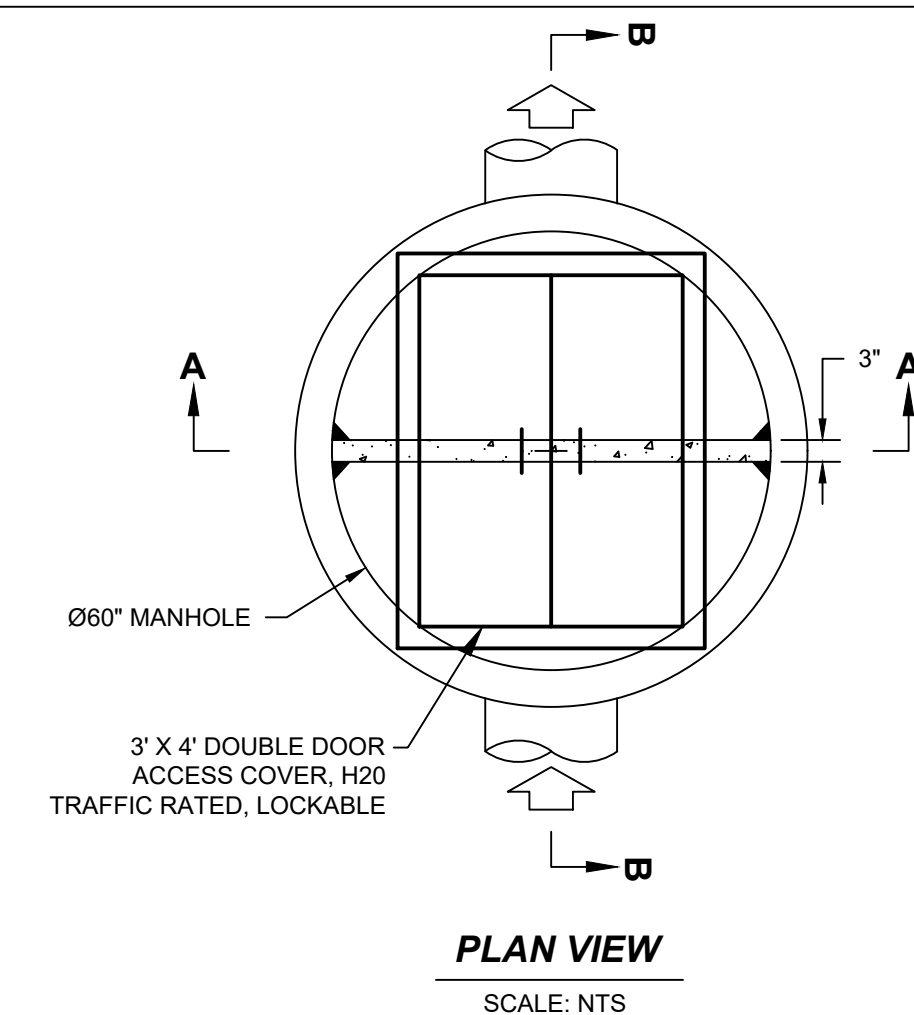
SCALE: NTS

WALL AND FOUNDATION THICKNESS SCHEDULE	
CONCRETE ELEMENT	THICKNESS (IN.)
WALL, HEIGHT (H) <= 9	T = 12
WALL, HEIGHT (H) > 9	T = 16
MAT FOUNDATION	T + 4

VAULT DIMENSION SCHEDULE				
PIPE DIAMETER	A	B	C	D
10"	4'-0"	6'-0"	2'-0"	4'-0"
18"	6'-0"	7'-0"	4'-0"	5'-0"
24"	7'-0"	8'-0"	4'-0"	6'-0"
36"	8'-0"	8'-8"	6'-0"	8'-0"

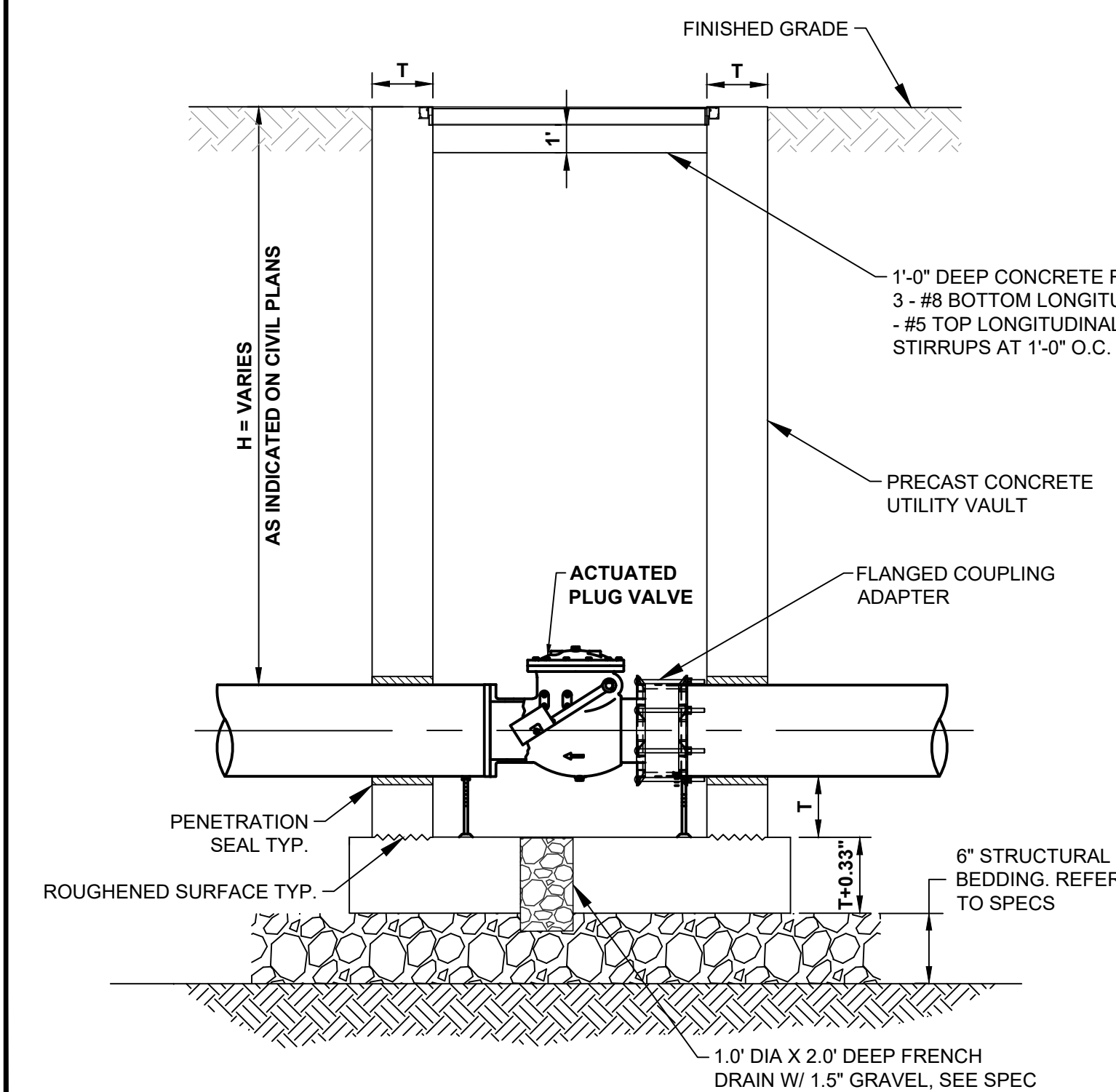


**ROOF PLAN FOR ACTUATED VALVE VAULT**

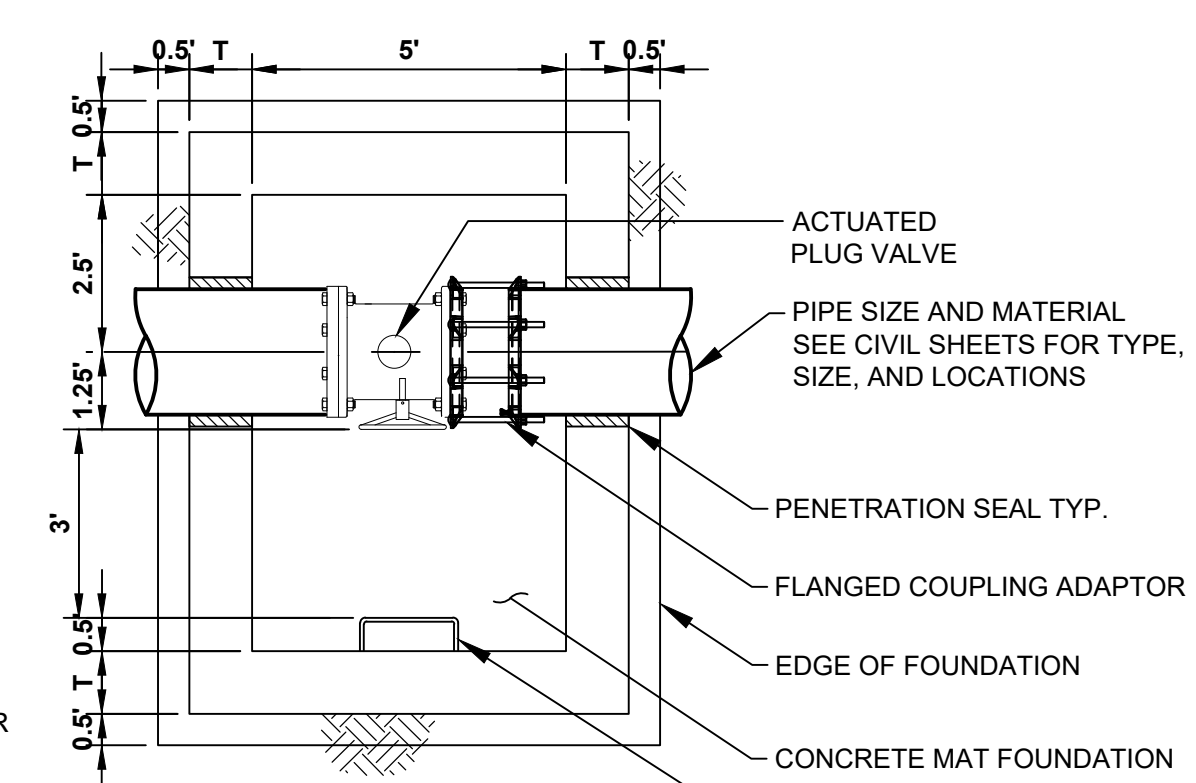


**PLAN VIEW**

SCALE: NTS



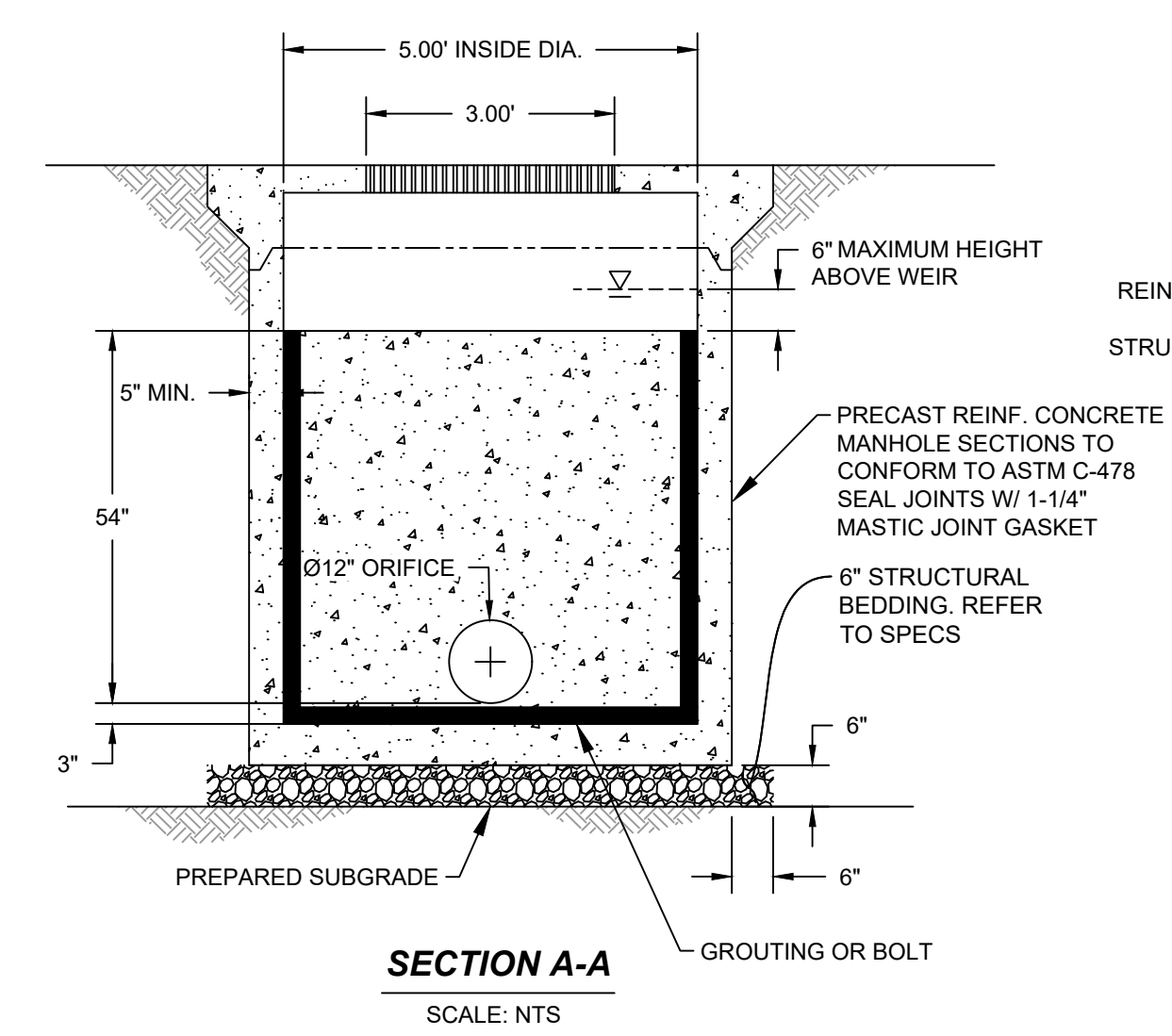
**ACTUATED VALVE VAULT SECTION**



**FOUNDATION PLAN FOR ACTUATED VALVE VAULT**

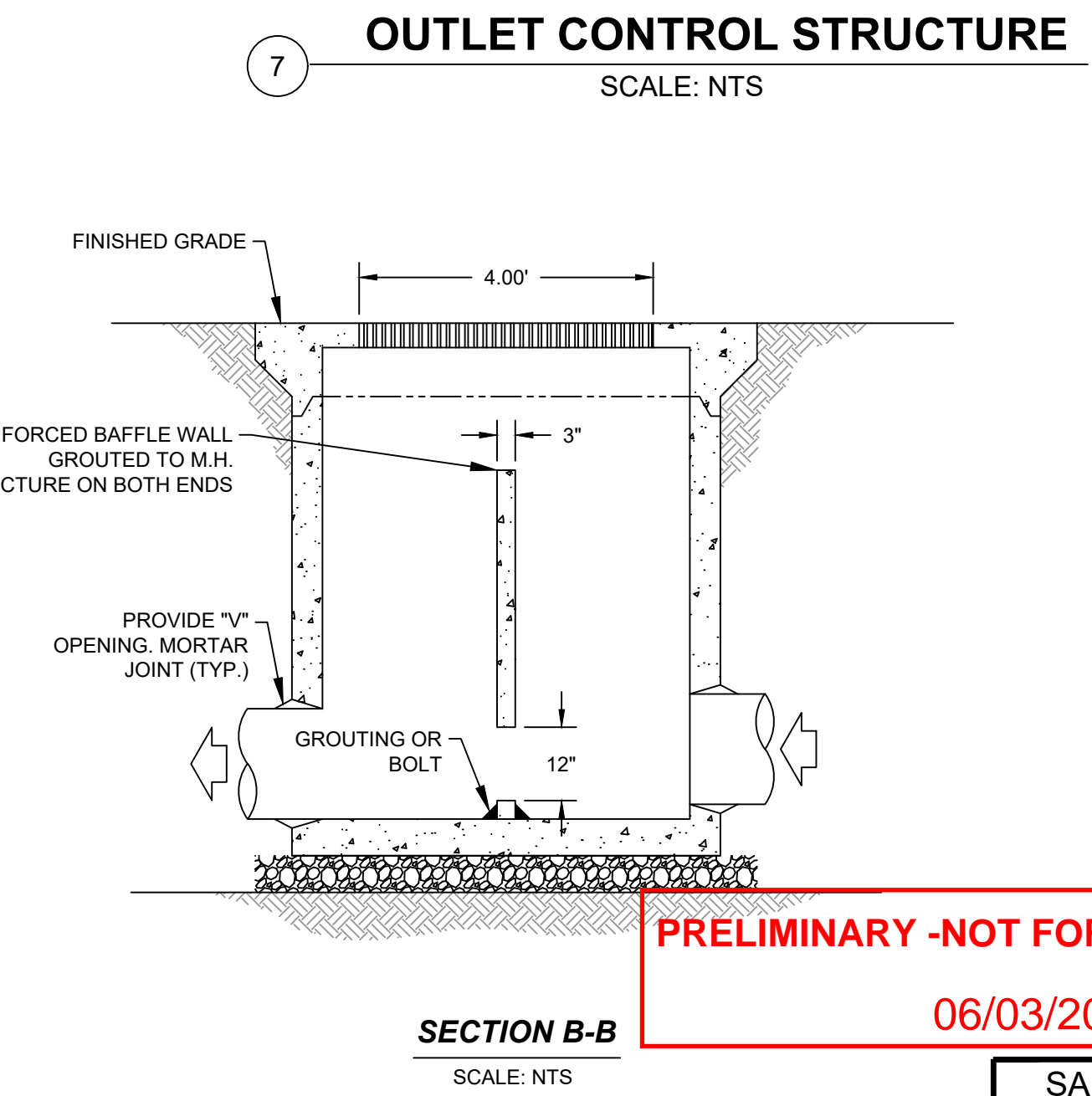
**6 ACTUATED VALVE**

SCALE: NTS



**SECTION A-A**

SCALE: NTS



**SECTION B-B**

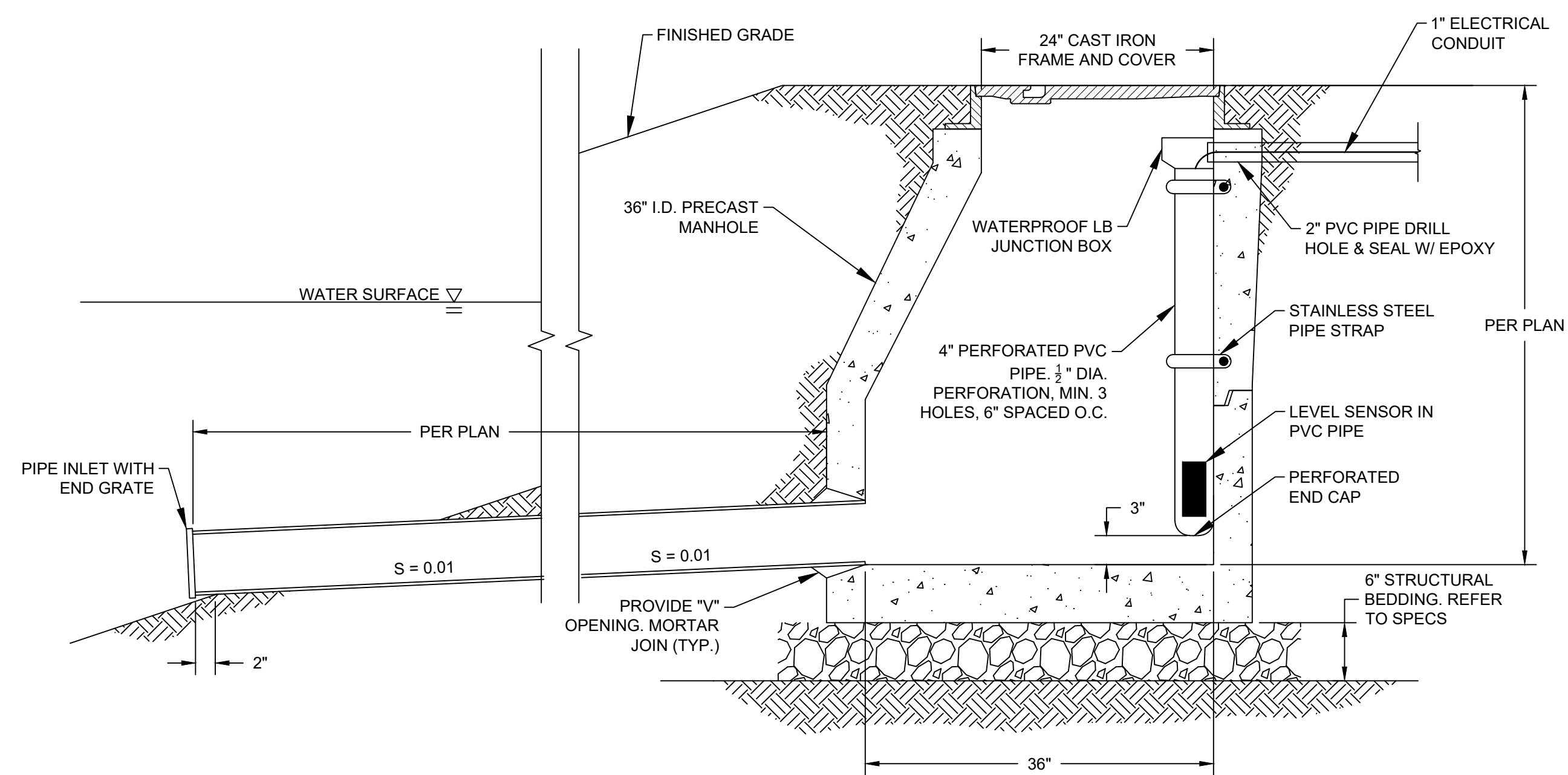
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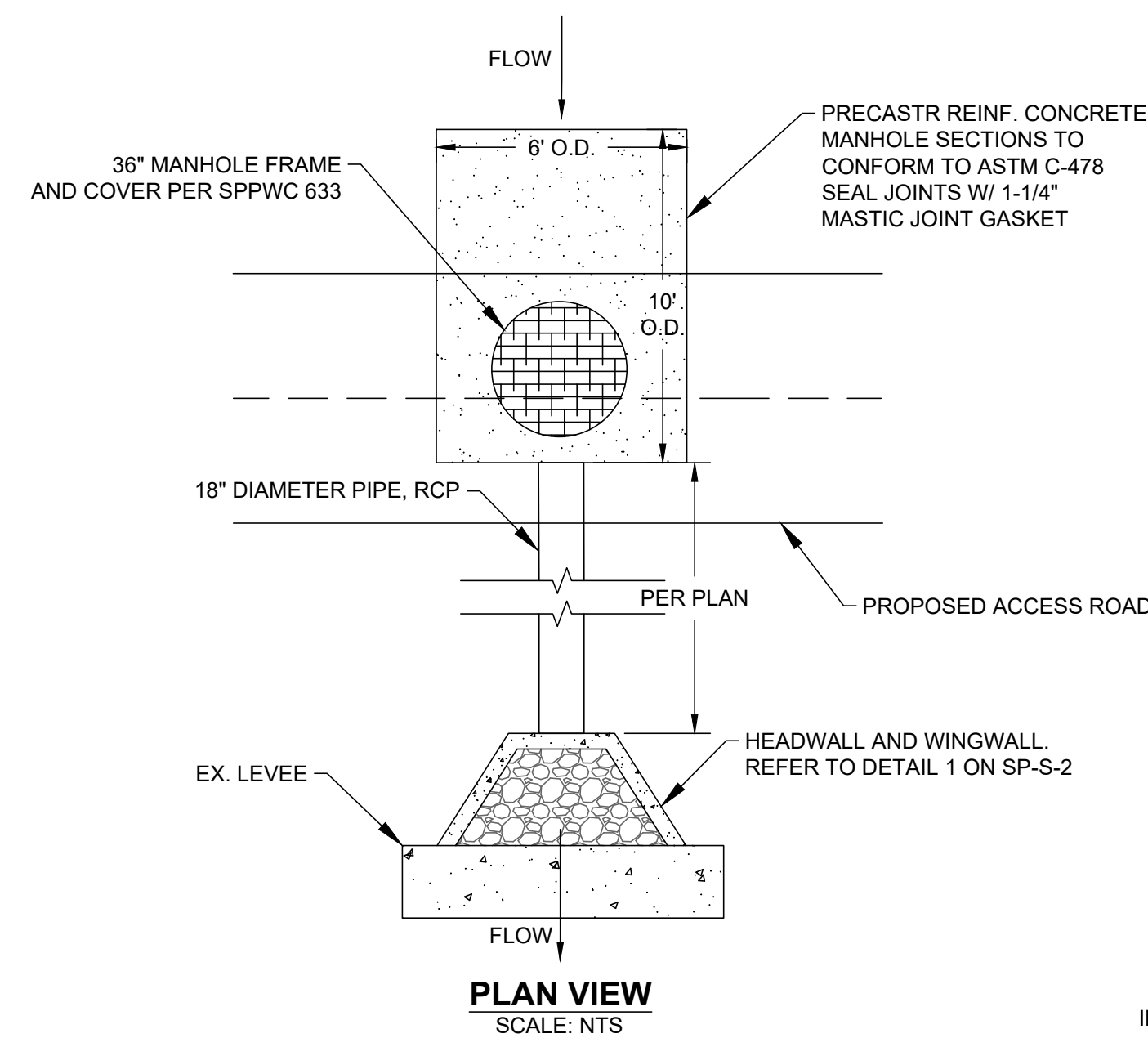
06/03/2024

DRAWN BY AMT		REVISIONS			CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				SAN PASCUAL SITE	
DESIGNED BY AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT		SHEET SP-C-12	
CHECKED BY CAS							SHEET TITLE DETAILS		14 OF 95	
			AS BUILT				SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX	DWG. NO.	

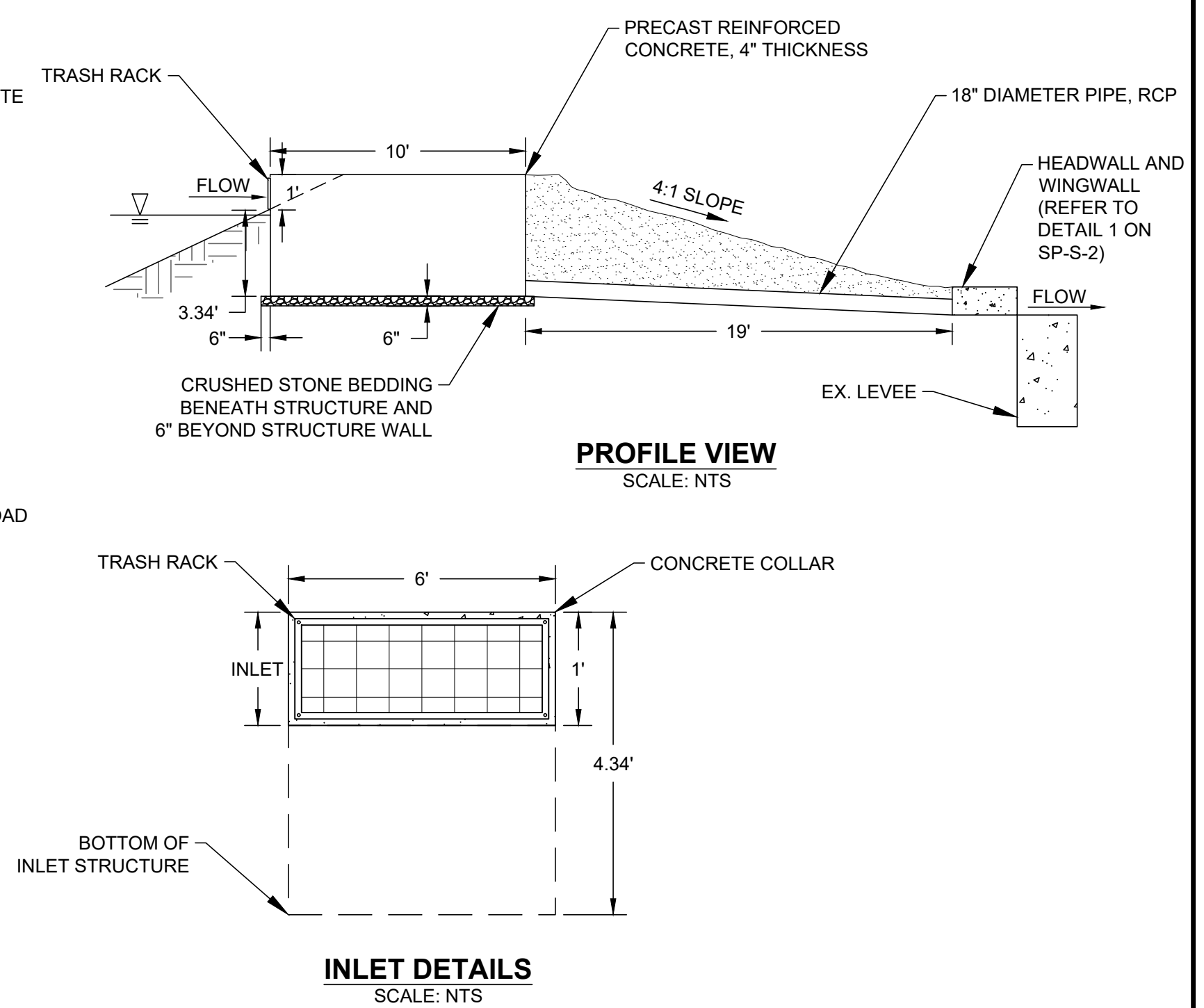
Date: April 22, 2020 W:\PROJECTS\CITY OF PASADENA\20-138 ARROYO SECO WATER REUSE & NATURAL STREAM RESTORATION\CAD\SAN\_PASCUAL\FINAL PLOTS\CS\_SAN\_PASCUAL-DETAILS.DWG



8 **WATER LEVEL TRANSMITTER VAULT DETAIL**  
SCALE: NTS



9 **EMERGENCY OVERFLOW OUTLET**  
SCALE: NTS



**INLET DETAILS**  
SCALE: NTS

**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

SAN PASCUAL SITE							
DRAWN BY					PROJECT	SHEET	SP-C-13
AMT	MARK	DATE	DESCRIPTION	BY	ARROYO SECO WATER REUSE AND NATURAL STREAM RESTORATION PROJECT	15	OF 95
DESIGNED BY					SHEET TITLE	DETAILS	
AMT					SCALE	AS SHOWN	ACCOUNT NUMBER XXXXXX
CHECKED BY							DWG. NO.
CAS			AS BUILT				

**TREE PROTECTION NOTES:**

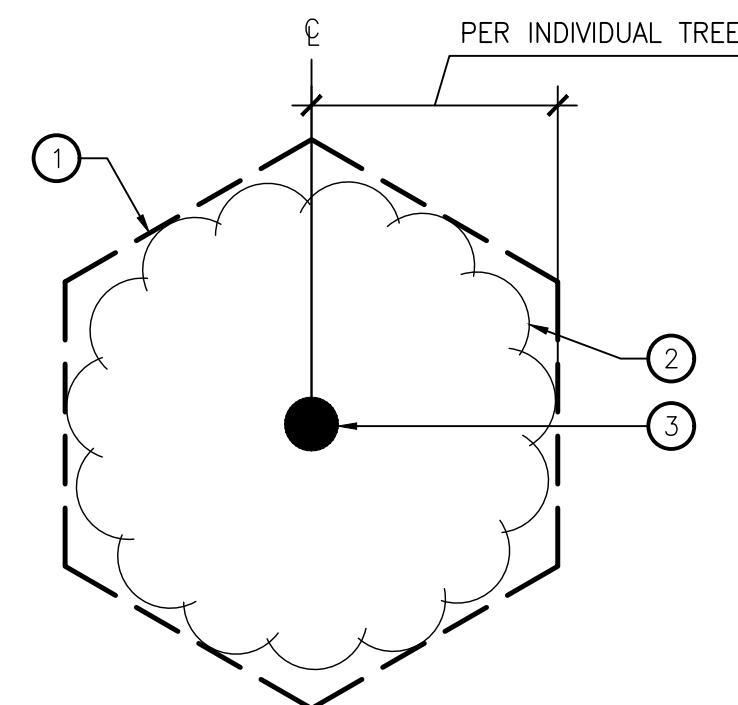
1. PROTECTION BARRIER: A PROTECTION BARRIER SHALL BE INSTALLED AROUND THE TREE (OR TREES) TO BE PRESERVED. THE BARRIER SHALL BE CONSTRUCTED OF DURABLE FENCING MATERIAL, SUCH AS PLASTIC CONSTRUCTION FENCING, OR CHAIN-LINK FENCING. THE BARRIER SHALL BE PLACED AS FAR FROM THE BASE OF THE TREE(S) AS POSSIBLE, PREFERABLY AT THE DRIP LINE. THE FENCING SHALL BE MAINTAINED IN GOOD REPAIR THROUGHOUT THE DURATION OF THE PROJECT, AND SHALL NOT BE REMOVED, RELOCATED, OR ENCROACHED UPON WITHOUT PERMISSION OF THE ARBORIST INVOLVED.
2. STORAGE OF MATERIALS: THERE SHALL BE NO STORAGE OF MATERIALS OR SUPPLIES OF ANY KINDS WITHIN THE AREA OF THE PROTECTION BARRIERS. CONCRETE AND CEMENT MATERIALS, BLOCK, STONE, SAND AND SOIL SHALL NOT BE PLACED WITHIN THE DRIPLINE OF THE TREE.
3. NO VEHICLE OR EQUIPMENT IS TO BE OPERATED OR PARKED UNDER A TREE, NOR ARE ANY MATERIALS TO BE STORED WITHIN THE DRIPLINE OF A TREE OR LEANED AGAINST A TREE TRUNK. DO NOT PILE OR COMPACT SOIL WITHIN A DRIPLINE.
4. NO CHEMICAL HERBICIDES ARE TO BE USED WITHIN 100 FEET OF A TREE'S DRIPLINE.
5. DO NOT STRIP TOPSOIL AROUND TREES. ANY VEGETATION TO BE REMOVED SHOULD BE REMOVED BY CUTTING AT GROUND LEVEL RATHER THAN PULLING OUT BY EQUIPMENT.
6. FUEL STORAGE: FUEL STORAGE SHALL NOT BE PERMITTED WITHIN 150 FEET OF ANY TREE TO BE PRESERVED. REFUELING, SERVICING AND MAINTENANCE OF EQUIPMENT AND MACHINERY SHALL NOT BE PERMITTED WITHIN 150 FEET OF PROTECTED TREES.
7. DEBRIS AND WASTE MATERIALS: DEBRIS AND WASTE FROM CONSTRUCTION OR OTHER ACTIVITIES SHALL NOT BE PERMITTED WITHIN PROTECTED AREAS. WASH DOWN OF CONCRETE OR CEMENT HANDLING EQUIPMENT, IN PARTICULAR, SHALL NOT BE PERMITTED WITHIN 150 FEET OF PROTECTED TREES.
8. GRADE CHANGES: GRADE CHANGES CAN BE PARTICULARLY DAMAGING TO TREES. EVEN AS A LITTLE AS TWO INCHES OF FILL CAN CAUSE THE DEATH OF A TREE. LOWERING THE GRADE CAN DESTROY MAJOR PORTIONS OF THE ROOT SYSTEM. ANY GRADE CHANGES PROPOSED SHOULD BE APPROVED BY A REGISTERED CONSULTING ARBORIST BEFORE CONSTRUCTION BEGINS, AND PRECAUTIONS TAKEN TO MITIGATE POTENTIAL INJURIES.
9. DAMAGES: ANY DAMAGES OR INJURIES TO TREES SHALL BE REPORTED TO THE PROJECT ARBORIST AS SOON AS POSSIBLE. SEVERED ROOTS SHALL BE PRUNED CLEANLY TO HEALTHY TISSUE USING PROPER PRUNING TOOLS. BROKEN BRANCHES OR LIMBS SHALL BE PRUNED ACCORDING TO INTERNATIONAL SOCIETY OF ARBORCULTURE PRUNING GUIDELINES AND ANSI A-300 PRUNING STANDARDS.
10. PREVENTATIVE MEASURES: BEFORE CONSTRUCTION BEGINS, FERTILIZATION OF AFFECTED TREES IS RECOMMENDED TO IMPROVE TREE VIGOR AND HEALTH. SOIL ANALYSES TESTING SHOULD BE COMPLETED TO ASSURE FERTILIZATION WITH THE APPROPRIATE FERTILIZER PRODUCTS. PRUNING OF THE TREE CANOPIES AND BRANCHES SHOULD BE DONE AT THE DIRECTION OF THE PROJECT ARBORIST TO REMOVE ANY DEAD OR BROKEN BRANCHES AND TO PROVIDE NECESSARY CLEARANCES FOR THE CONSTRUCTION EQUIPMENT.
11. HAND DIG VERTICAL TRENCH AT THE FINAL CUT LINE TO FINAL GRADE AND CLEANLY CUT ANY ROOTS ENCOUNTERS BEFORE SEALING WITH APPROVED TREE SEAL. THIS PROCEDURE IS TO PROTECT THE ROOT SYSTEM FROM UNNECESSARY DAMAGE BY EXCAVATION EQUIPMENT.
12. CONTRACTOR IS RESPONSIBLE FOR THE HEALTH OF EXISTING TREES DURING CONSTRUCTION AND MAINTENANCE PERIOD. DURING CONSTRUCTION THE IMPACTED TREES SHALL BE CLOSELY MONITORED TO FURTHER MITIGATE SHOCK SYMPTOMS IF THEY OCCUR. THE CONTRACTOR SHOULD BE PREPARED TO PROVIDE TEMPORARY WATER TO IRRIGATE AND WASH THE DUST FROM THE FOLIAGE IF NEEDED. CONTACT THE ARBORIST IF A DECLINE IN TREE CONDITION IS NOTED.

**SHEET INDEX:**

SHEET	SHEET TITLE
SP-L-1	TREE DISPOSITION LEGEND AND NOTES
SP-L-2	TREE DISPOSITION LEGEND AND NOTES
SP-L-3	TREE DISPOSITION LEGEND AND NOTES
SP-L-4	TREE DISPOSITION PLAN
SP-L-5	TREE DISPOSITION PLAN
SP-L-6	TREE DISPOSITION PLAN
SP-L-7	LANDSCAPE CONSTRUCTION SCHEDULE AND NOTES
SP-L-8	LANDSCAPE CONSTRUCTION PLAN
SP-L-9	LANDSCAPE CONSTRUCTION PLAN
SP-L-10	LANDSCAPE CONSTRUCTION PLAN
SP-L-11	LANDSCAPE CONSTRUCTION DETAILS
SP-L-12	LANDSCAPE CONSTRUCTION DETAILS
SP-L-13	LANDSCAPE PLANTING LEGEND AND NOTES
SP-L-14	LANDSCAPE PLANTING PLAN
SP-L-15	LANDSCAPE PLANTING PLAN
SP-L-16	LANDSCAPE PLANTING PLAN
SP-L-17	LANDSCAPE PLANTING DETAILS

**NOTES**

- TYPICAL FENCE CONFIGURATION SHOWN. ACTUAL FIELD CONDITIONS MAY VARY LAYOUT.
- FENCE TO BE INSTALLED AROUND TREE CANOPY WHERE SITE LOGISTICS ALLOW. WHERE PATHS OF TRAVEL, ROADS, OR OTHER SITE LOGISTICS CONFLICT, FENCE MAY NOT COVER THE FULL EXTENT OF TREE CANOPY.



**LEGEND**

- 5' HT. CHAIN LINK FENCE.
- EXTENT OF TREE CANOPY (DRIPLINE).
- TREE TRUNK.

**1 TREE PROTECTION ZONE TYP.**  
SCALE: NOT TO SCALE

**TREE DISPOSITION LEGEND:**

SYMBOL	BOTANICAL NAME "COMMON NAME"	ACTION -STATUS	DIAMETER (INCHES)	JURISDICTION
301	PLATANUS RACEMOSA "WESTERN SYCAMORE"	PROTECT-IN-PLACE	23.1, 17.1	SOUTH PASADENA
302	SCHINUS TEREBINTHIFOLIUS "BRAZILIAN PEPPERTREE"	REMOVE -PROTECTED	15	SOUTH PASADENA REPLACE-2
303	HETEROMELES ARBUTIFOLIA "TOYON"	REMOVE	3.1	SOUTH PASADENA
304	QUERCUS AGRIFOLIA "COAST LIVE OAK"	REMOVE -PROTECTED	19.3	SOUTH PASADENA REPLACE-4
305	HETEROMELES ARBUTIFOLIA "TOYON"	PROTECT-IN-PLACE	5.2, 5	SOUTH PASADENA
306	QUERCUS AGRIFOLIA "COAST LIVE OAK"	REMOVE -PROTECTED	15.5	SOUTH PASADENA REPLACE-4
307	QUERCUS AGRIFOLIA "COAST LIVE OAK"	REMOVE	8	SOUTH PASADENA
308	PLATANUS RACEMOSA "WESTERN SYCAMORE"	REMOVE	5.6	SOUTH PASADENA
309	PLATANUS RACEMOSA "WESTERN SYCAMORE"	REMOVE -PROTECTED	22.2, 19.8, 18.5	SOUTH PASADENA
310	SALIX GOODINGLI "BLACK WILLOW"	REMOVE	5.3	SOUTH PASADENA
311	PLATANUS RACEMOSA "WESTERN SYCAMORE"	PROTECT-IN-PLACE	7.9	SOUTH PASADENA
312	QUERCUS AGRIFOLIA "COAST LIVE OAK"	REMOVE -PROTECTED	10, 7.2	SOUTH PASADENA REPLACE-2
313	SALIX GOODINGLI "BLACK WILLOW"	REMOVE	9	SOUTH PASADENA
314	HETEROMELES ARBUTIFOLIA "TOYON"	REMOVE	2.5, 2.2, 2, 1.5	SOUTH PASADENA
315	QUERCUS AGRIFOLIA "COAST LIVE OAK"	REMOVE -PROTECTED	33.1	SOUTH PASADENA REPLACE-8
316	PLATANUS RACEMOSA "WESTERN SYCAMORE"	REMOVE -PROTECTED	29.2, 5.4, 4.5, 3	SOUTH PASADENA REPLACE-6
317	ULMUS PARVIFLOA "CHINESE ELM"	PROTECT-IN-PLACE	9.6, 8.1, 7.5, 7	SOUTH PASADENA
318	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	2, 2	SOUTH PASADENA
319	SCHINUS TEREBINTHIFOLIUS "BRAZILIAN PEPPERTREE"	REMOVE	6, 6, 5.5, 4	SOUTH PASADENA
320	SCHINUS TEREBINTHIFOLIUS "BRAZILIAN PEPPERTREE"	REMOVE -PROTECTED	12.6, 12.2, 11, 9.5	SOUTH PASADENA REPLACE-5
321	FRAXINUS UHDEI "SHAMEL ASH"	REMOVE -PROTECTED	16.5, 14.1, 14, 11	SOUTH PASADENA REPLACE-8
322	PLATANUS RACEMOSA "WESTERN SYCAMORE"	REMOVE -PROTECTED	36.2, 20.3	SOUTH PASADENA REPLACE-14
323	SCHINUS TEREBINTHIFOLIUS "BRAZILIAN PEPPERTREE"	REMOVE	7.1, 5.1	SOUTH PASADENA
324	HETEROMELES ARBUTIFOLIA "TOYON"	PROTECT-IN-PLACE	3.7, 3.6, 3, 2	SOUTH PASADENA
325	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	13	SOUTH PASADENA
326	QUERCUS AGRIFOLIA "COAST LIVE OAK"	REMOVE -PROTECTED	20.3	LOS ANGELES REPLACE-4

**TREE DISPOSITION LEGEND:**

SYMBOL	BOTANICAL NAME "COMMON NAME"	ACTION /STATUS	DIAMETER (INCHES)	JURISDICTION
327	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE	3, 1.5	LOS ANGELES
328	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE -PROTECTED SHRUB	5.4, 5.3, 2.3	LOS ANGELES REPLACE-4
329	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	26.3	LOS ANGELES
330	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	29.8	LOS ANGELES
331	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	12.6, 11.7	LOS ANGELES
332	PLATANUS RACEMOSA "WESTERN SYCAMORE"	PROTECT-IN-PLACE	14.3	LOS ANGELES
333	PLATANUS RACEMOSA "WESTERN SYCAMORE"	PROTECT-IN-PLACE	7.5	LOS ANGELES
334	PLATANUS RACEMOSA "WESTERN SYCAMORE"	PROTECT-IN-PLACE	10.2, 6.1	LOS ANGELES
335	QUERCUS AGRIFOLIA "COAST LIVE OAK"	REMOVE -PROTECTED	8.2	LOS ANGELES REPLACE-4
336	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	7.1	LOS ANGELES
337	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	9	LOS ANGELES
338	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	5.1	LOS ANGELES
339	PLATANUS RACEMOSA "WESTERN SYCAMORE"	PROTECT-IN-PLACE	32.8, 21, 11	LOS ANGELES
340	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE -PROTECTED SHRUB	13.2	LOS ANGELES REPLACE-4
341	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE -PROTECTED SHRUB	4.5, 4.2, 3, 2	LOS ANGELES REPLACE-4
342	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE -PROTECTED SHRUB	4.2, 4.2, 3, 1.5	LOS ANGELES REPLACE-4
343	QUERCUS AGRIFOLIA "COAST LIVE OAK"	REMOVE -PROTECTED	15	LOS ANGELES REPLACE-4
344	QUERCUS AGRIFOLIA "COAST LIVE OAK"	REMOVE -PROTECTED	4.1, 3.6	LOS ANGELES REPLACE-4
345	SALIX LASIOLEPIS "ARROYO WILLOW"	PROTECT-IN-PLACE	3.7, 3.3, 3, 2	SOUTH PASADENA
346	SALIX LASIOLEPIS "ARROYO WILLOW"	REMOVE	3.8, 1	SOUTH PASADENA
347	SALIX LASIOLEPIS "ARROYO WILLOW"	REMOVE	3.1, 3	SOUTH PASADENA
348	FRAXINUS UHDEI "SHAMEL ASH"	REMOVE	17.6	LOS ANGELES
349	FRAXINUS UHDEI "SHAMEL ASH"	REMOVE -PROTECTED	18.2	SOUTH PASADENA REPLACE-2
350	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE	8.2, 7.3, 6, 5.5	SOUTH PASADENA
351	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	11.1	SOUTH PASADENA
352	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	15.8	SOUTH PASADENA

**PRELIMINARY - NOT FOR CONSTRUCTION**  
**06/03/2024**

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SP-L-1
AMT						SHEET TITLE	TREE DISPOSITION LEGEND AND NOTES		16	OF 49
DESIGNED BY						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.
AMT										
CHECKED BY										
CAS		AS BUILT								



TREE DISPOSITION LEGEND:				
SYMBOL	BOTANICAL NAME "COMMON NAME"	ACTION /STATUS	DIAMETER (INCHES)	JURISDICTION
353 X	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE -PROTECTED SHRUB	17.5, 8.5	SOUTH PASADENA REPLACE-2
354 X	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE -PROTECTED SHRUB	19.2	SOUTH PASADENA REPLACE-4
355 X	CHITALPA TASHKENTENSIS "CHITALPA"	REMOVE -PROTECTED	10.1, 7.7, 7.2, 6	SOUTH PASADENA REPLACE-1
356 X	QUERCUS AGRIFOLIA "COAST LIVE OAK"	REMOVE	3.9, 2.7	SOUTH PASADENA
357 X	FRAXINUS UHDEI "SHAMEL ASH"	REMOVE -PROTECTED	12.2	SOUTH PASADENA REPLACE-2
358 X	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE	8.5, 3.1	SOUTH PASADENA
359 X	CERATONIA SILIQUA "CAROB"	REMOVE -PROTECTED	13.7	SOUTH PASADENA REPLACE-2
360 O	CERATONIA SILIQUA "CAROB"	PROTECT-IN-PLACE	8.8, 8.1	SOUTH PASADENA
361 X	PLATANUS RACEMOSA "WESTERN SYCAMORE"	REMOVE -PROTECTED	46.6, 17.1	SOUTH PASADENA REPLACE-14
362 O	PLATANUS RACEMOSA "WESTERN SYCAMORE"	PROTECT-IN-PLACE	4.2	SOUTH PASADENA
363 O	FRAXINUS UHDEI "SHAMEL ASH"	PROTECT-IN-PLACE	15.9	SOUTH PASADENA
364 O	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	14.1	SOUTH PASADENA
365 X	SALIX LASIOLEPIS "ARROYO WILLOW"	REMOVE	9.5, 7, 4	SOUTH PASADENA
366 X	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE	9.1	SOUTH PASADENA
367 O	QUERCUS AGRIFOLIA "COAST LIVE OAK"	PROTECT-IN-PLACE	7.4	SOUTH PASADENA
368 O	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	6.8, 4.8, 4.5	SOUTH PASADENA
369 O	PLATANUS RACEMOSA "WESTERN SYCAMORE"	PROTECT-IN-PLACE	16.4, 15.9, 8.5, 7	SOUTH PASADENA
370 O	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	8.7, 5.3, 4.5	SOUTH PASADENA
371 O	HETEROMELES ARBUTIFOLIA "TOYON"	PROTECT-IN-PLACE	7, 3.5, 3, 2.5	SOUTH PASADENA
372 O	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	PROTECT-IN-PLACE	5.4, 5.3, 3.5,	SOUTH PASADENA
373 O	PLATANUS RACEMOSA "WESTERN SYCAMORE"	PROTECT-IN-PLACE	20.1, 17.1, 16, 13.5	SOUTH PASADENA
374 X	QUERCUS AGRIFOLIA "COAST LIVE OAK"	REMOVE	5.1	SOUTH PASADENA
375 X	SALIX GOODINGLI "BLACK WILLOW"	REMOVE	7, 6	SOUTH PASADENA
376 X	PLATANUS RACEMOSA "WESTERN SYCAMORE"	REMOVE -PROTECTED	18.3, 12.4	SOUTH PASADENA REPLACE-8
377 X	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	REMOVE	6.5	SOUTH PASADENA
378 O	PLATANUS RACEMOSA "WESTERN SYCAMORE"	PROTECT-IN-PLACE	34.8, 15.8, 13.1, 9	SOUTH PASADENA

TREE DISPOSITION LEGEND:				
SYMBOL	BOTANICAL NAME "COMMON NAME"	ACTION /STATUS	DIAMETER (INCHES)	JURISDICTION
379 X	SCHINUS TEREBINTHIFOLIUS "BRAZILIAN PEPPERTREE"	REMOVE -PROTECTED	23.2	SOUTH PASADENA REPLACE-3
380 X	SALIX GOODINGLI "BLACK WILLOW"	REMOVE -PROTECTED	15	SOUTH PASADENA REPLACE-2
381 X	SALIX GOODINGLI "BLACK WILLOW"	REMOVE	4.5	SOUTH PASADENA
382 X	SALIX GOODINGLI "BLACK WILLOW"	REMOVE	5	SOUTH PASADENA
383 X	SALIX GOODINGLI "BLACK WILLOW"	REMOVE	4.5, 3.5	SOUTH PASADENA
384 X	SALIX GOODINGLI "BLACK WILLOW"	REMOVE	4	SOUTH PASADENA
385 O	PLATANUS RACEMOSA "WESTERN SYCAMORE"	PROTECT-IN-PLACE	29.5, 27.9	SOUTH PASADENA
386 O	SCHINUS TEREBINTHIFOLIUS "BRAZILIAN PEPPERTREE"	PROTECT-IN-PLACE	14.5, 14, 12, 10.5	SOUTH PASADENA
387 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	16	SOUTH PASADENA
388 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	18	SOUTH PASADENA
389 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
390 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
391 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	22	SOUTH PASADENA
392 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
393 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	18	SOUTH PASADENA
394 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	28	SOUTH PASADENA
395 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
396 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
397 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	22	SOUTH PASADENA
398 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
399 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	12	SOUTH PASADENA
400 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
401 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	12	SOUTH PASADENA
402 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	18	SOUTH PASADENA
403 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	18	SOUTH PASADENA
404 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA

TREE DISPOSITION LEGEND:				
SYMBOL	BOTANICAL NAME "COMMON NAME"	ACTION /STATUS	DIAMETER (INCHES)	JURISDICTION
405 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	18	SOUTH PASADENA
406 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	8	SOUTH PASADENA
407 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	12	SOUTH PASADENA
408 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
409 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
410 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	15	SOUTH PASADENA
411 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
412 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
413 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	18	SOUTH PASADENA
414 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
415 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	18	SOUTH PASADENA
416 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
417 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
418 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
419 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	10	SOUTH PASADENA
420 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
421 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
422 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
423 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
424 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
425 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
426 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
427 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	15	SOUTH PASADENA
428 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
429 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA
430 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	20	SOUTH PASADENA

TREE DISPOSITION LEGEND:				
SYMBOL	BOTANICAL NAME "COMMON NAME"	ACTION /STATUS	DIAMETER (INCHES)	JURISDICTION
431 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
432 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
433 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
434 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
435 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
436 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	18	SOUTH PASADENA
437 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
438 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
439 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
440 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	12	SOUTH PASADENA
441 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
442 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
443 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
444 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	8	SOUTH PASADENA
445 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	8	SOUTH PASADENA
446 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	10	SOUTH PASADENA
447 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
448 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	36	SOUTH PASADENA
449 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
450 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	18	SOUTH PASADENA
451 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	15	SOUTH PASADENA
452 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
453 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
454 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
455 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
456 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	12	SOUTH PASADENA

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY	REVISIONS			
	MARK	DATE	DESCRIPTION	BY
AMT				
DESIGNED BY				
AMT				
CHECKED BY				
CAS			AS BUILT	

CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET
			SP-L-2
SHEET TITLE	TREE DISPOSITION LEGEND AND NOTES		17 OF 49
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
			DWG. NO.

**TREE DISPOSITION LEGEND:**

SYMBOL	BOTANICAL NAME "COMMON NAME"	ACTION /STATUS	DIAMETER (INCHES)	JURISDICTION
457 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
458 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
459 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
460 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
461 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
462 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	LOS ANGELES
463 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	12	LOS ANGELES
464 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
465 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
466 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	SOUTH PASADENA
467 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	LOS ANGELES
468 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	24	LOS ANGELES
469 X	WASHINGTONIA ROBUSTA "MEXICAN FAN PALM"	REMOVE	18	LOS ANGELES

TOTAL TREES TO BE REMOVED: 130

TOTAL TREES TO BE REMOVED IN LOS ANGELES: 14  
 PROTECTED TREES/SHRUBS TO BE REMOVED IN LOS ANGELES: 8  
 REPLACEMENT TREES/SHRUBS REQUIRED: 32  
 TOTAL REPLACEMENT TREES/SHRUBS: 36

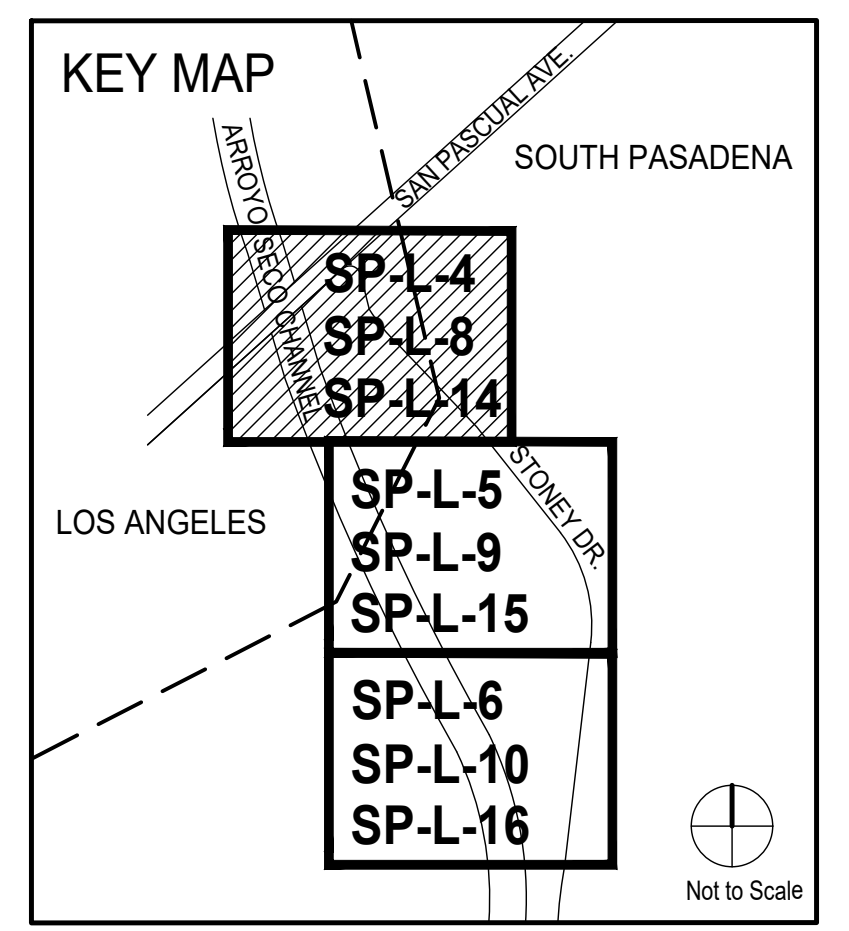
TOTAL TREES TO BE REMOVED IN SOUTH PASADENA: 116  
 PROTECTED TREES/SHRUBS TO BE REMOVED IN SOUTH PASADENA: 22  
 REPLACEMENT TREES REQUIRED: 88  
 TOTAL REPLACEMENT TREES: 96

TOTAL TREES REPLACED 132

**PRELIMINARY -NOT FOR CONSTRUCTION**

06/03/2024

DRAWN BY AMT		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY AMT	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	
CHECKED BY CAS							SHEET TITLE	TREE DISPOSITION LEGEND AND NOTES	
			AS BUILT				SCALE	AS SHOWN	ACCOUNT NUMBER XXXXXX
							SHEET	SP-L-3	
								18 OF 49	
							DWG. NO.		



MATCH LINE - SEE SHEET SP-L-5

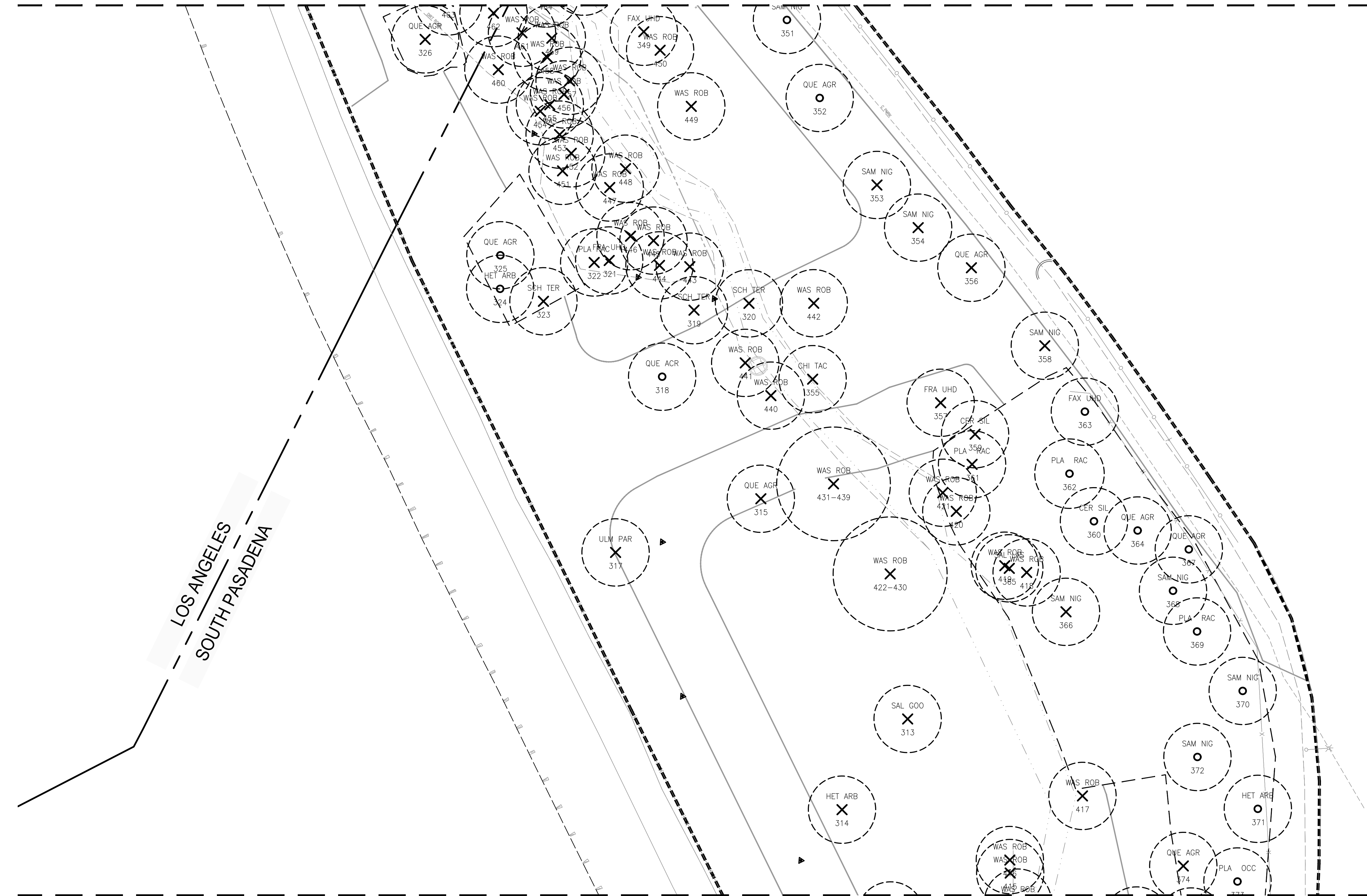
**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY	REVISIONS				
	MARK	DATE	DESCRIPTION	BY	CHKD. APPROVED
AMT					
DESIGNED BY					
AMT					
CHECKED BY					
CAS			AS BUILT		

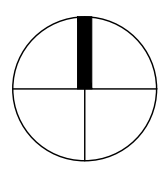
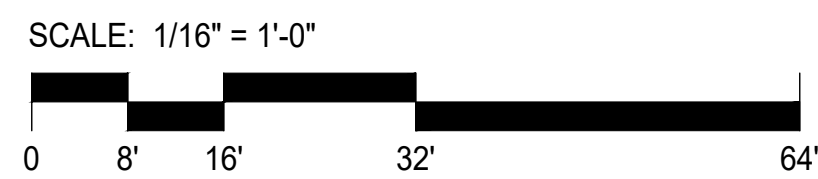
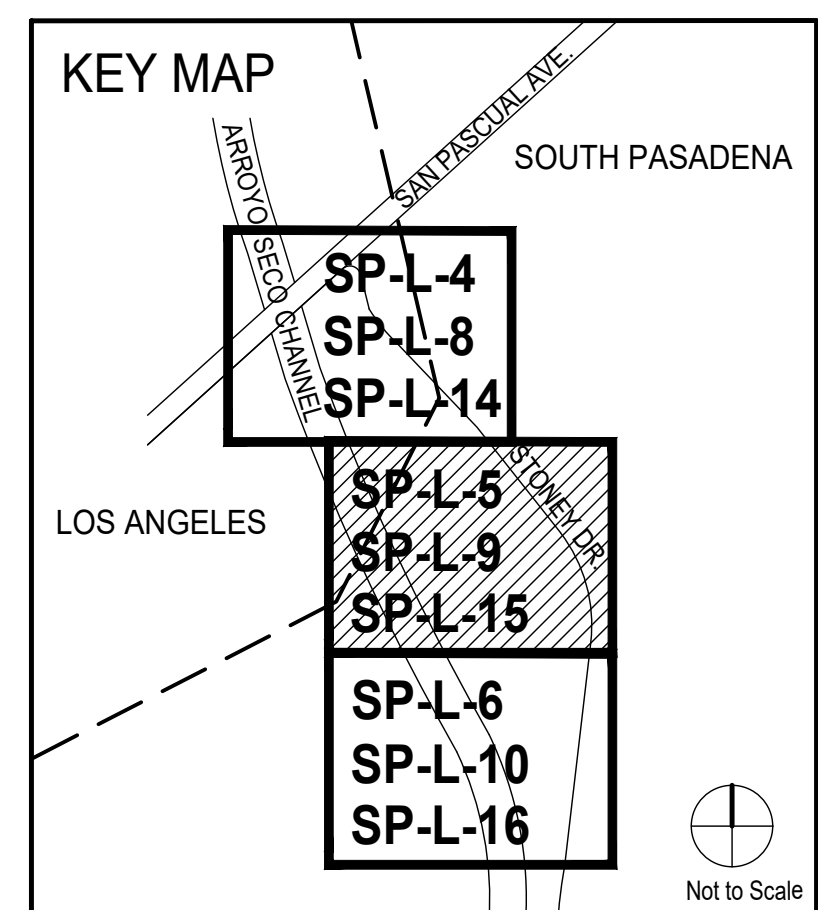
CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET <b>SP-L-4</b>
SHEET TITLE	TREE DISPOSITION PLAN		<b>19</b> OF <b>49</b>
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
DWG. NO.			

Date: April 22, 2020 Z:\SHARED\LOS ANGELES\PRODUCTION\2024\122001\CAD\122001\_SP-L2-3\_L2-5.DWG

MATCH LINE - SEE SHEET SP-L-4



MATCH LINE - SEE SHEET SP-L-6



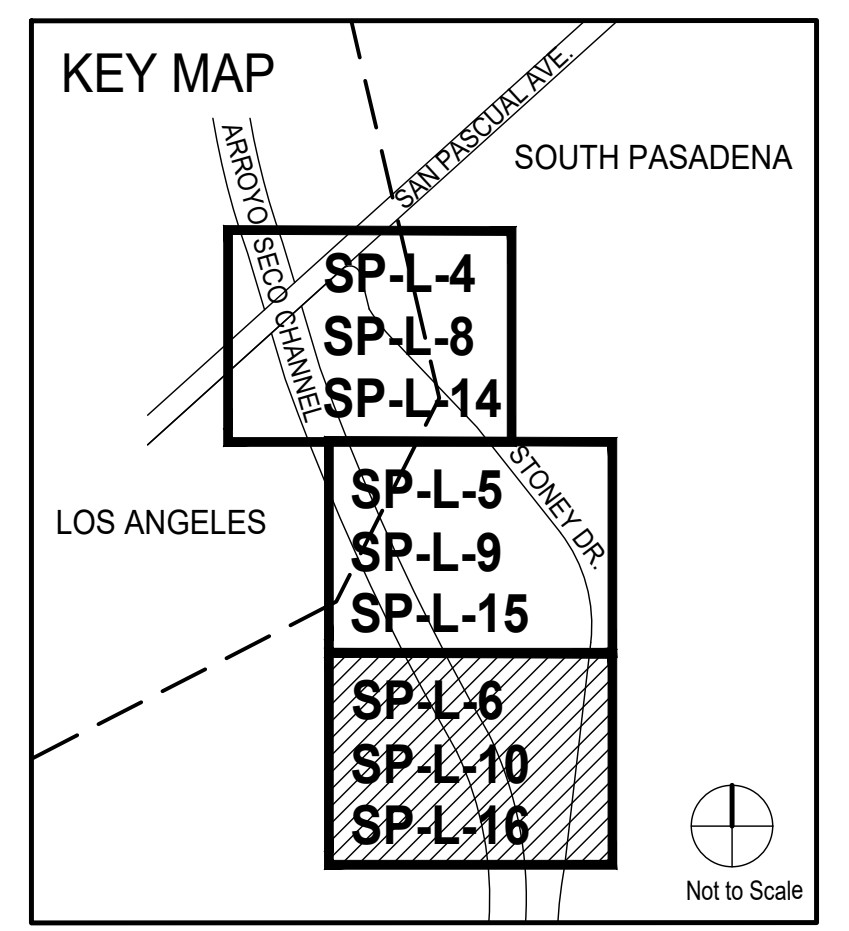
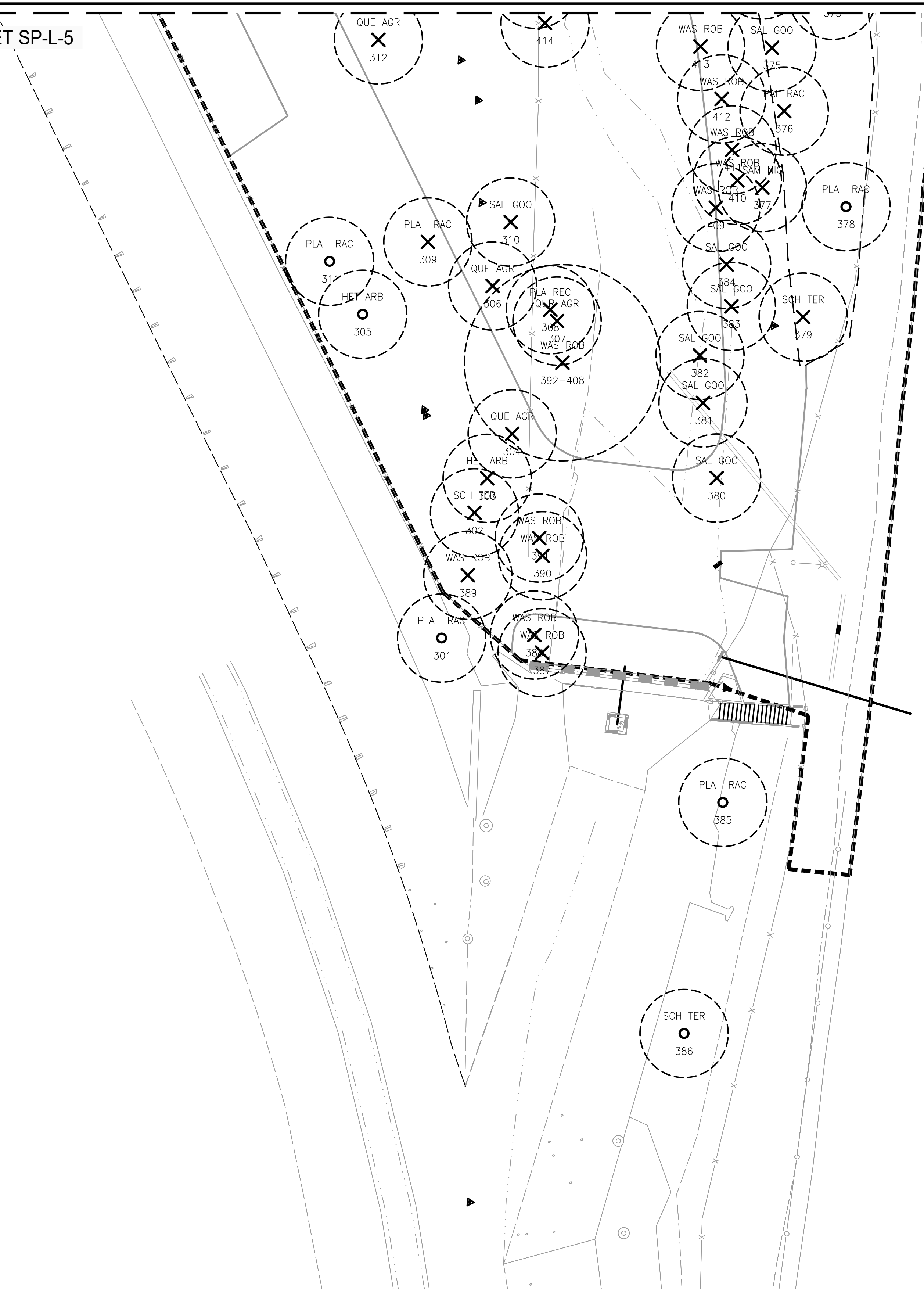
**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY	REVISIONS				
	MARK	DATE	DESCRIPTION	BY	CHKD. APPROVED
AMT					
DESIGNED BY					
AMT					
CHECKED BY					
CAS		AS BUILT			

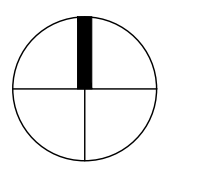
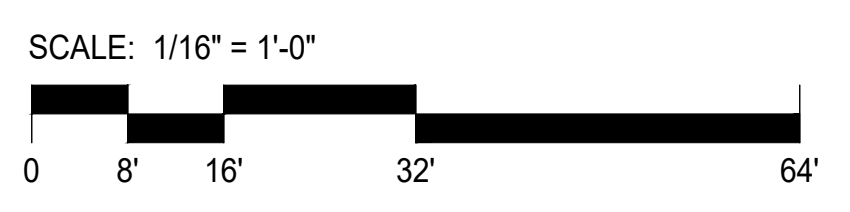
CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET <b>SP-L-5</b>
SHEET TITLE	TREE DISPOSITION PLAN		20 OF 49
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
DWG. NO.			

Date: April 22, 2020 Z:\SHARED\LOS ANGELES\PRODUCTION\2024\122001\CAD\122001\_SP\_L2-3\_L2-5.DWG

MATCH LINE - SEE SHEET SP-L-5



**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024



DRAWN BY AMT		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY AMT	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	SHEET SP-L-6	
CHECKED BY CAS							SHEET TITLE TREE DISPOSITION PLAN	21 OF 49	
			AS BUILT				SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX	DWG. NO.

Date: April 22, 2020 Z:\SHARED\LOS ANGELES\PRODUCTION\2024\122001\CAD\122001\_SP-L2-3\_L2-5.DWG

**CONSTRUCTION NOTES:**

- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL SERVICE RUNS, SUCH AS WATER SUPPLY, ELECTRICAL (OVERHEAD AND UNDERGROUND), TELEPHONE, SANITARY SEWER, ETC. SHOULD BE ASCERTAINED BEFORE WORK IS STARTED, WHERE THEY WILL BE AFFECTED BY EXCAVATION OR WHERE MACHINES MAY BE WORKING NEARBY, THEY SHOULD BE CAREFULLY SEALED, PROTECTED OR DIVERTED. NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICT WITH PROPOSED IMPROVEMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS INCURRED DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
- WHERE CONFLICTS OCCUR BETWEEN DRAWINGS AND ACTUAL FIELD CONDITION, NOTIFY OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
- PRIOR TO INSTALLATION OF ANY PAVING, REFER TO PROJECT'S GEOTECHNICAL REPORT. REPORT DISCREPANCIES BETWEEN GEOTECHNICAL REPORT'S RECOMMENDATIONS AND INFORMATION NOTED IN THE PAVING SCHEDULE, PAVING DETAILS OR PAVING SPECIFICATIONS BEFORE PROCEEDING WITH THE WORK.
- CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGE TO EXISTING CONDITIONS TO REMAIN (ON- OR OFF-SITE) RESULTING FROM OR RELATED TO THE WORK OF THIS PROJECT.
- ALL WORK SHALL COMPLY WITH APPLICABLE CODES, STATUTES AND ORDINANCES.
- COORDINATE CONDUIT, SLEEVES AND EMBEDMENTS PRIOR TO ANY HARDSCAPE CONSTRUCTION.
- DIMENSIONS ARE FROM FACE OF, OR OUTSIDE OF PAVING, WALLS, ETC., UNLESS OTHERWISE NOTED.
- LOCATIONS OF FEATURES NOT SPECIFICALLY DIMENSIONED MAY BE DETERMINED BY SCALE. CONTACT OWNER'S REPRESENTATIVE WHERE CONFLICT OCCURS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALING OF DRAWINGS.
- PAVING MOCK-UPS ARE REQUIRED FOR ALL PAVING ON THIS PROJECT. REFER TO PAVING SCHEDULE, PAVING DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- OBTAIN APPROVAL OF OWNER'S REPRESENTATIVE FOR ALL FORMS PRIOR TO PLACING CONCRETE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO PROTECT PERSONNEL AND ADJACENT PROPERTY DURING CONSTRUCTION. THE CONTRACTOR SHALL ADEQUATELY BRACE ELEMENTS OF THE STRUCTURE DURING CONSTRUCTION TO ENSURE THE SAFETY OF THE SITE AND/OR STRUCTURES.
- THERE SHALL BE NO DEVIATIONS FROM STRUCTURAL DETAILS WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
- NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED, BORED OR OTHERWISE WEAKENED, EXCEPT AS ALLOWED BY THE UNIFORM BUILDING CODE.
- CONTRACTOR SHALL SUBMIT COPIES OF ALL SHOP DRAWINGS TO OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION OF RELATED WORK, AND ALLOW AMPLE TIME FOR OWNER'S REPRESENTATIVE'S REVIEW AND COORDINATION.
- TRANSITIONS FROM EXISTING PAVING TO NEW PAVING SHALL BE FLUSH.
- INSTALL EXPANSION JOINTS AS SHOWN ON PLANS AND WHEREVER PAVING ABUTS ANY VERTICAL SURFACE.
- INSTALL CONCRETE THAT OBTAINS A MINIMUM COMPRESSIVE STRENGTH OF 4,000 P. S. I. AT 28 DAYS UNLESS OTHERWISE SPECIFIED. SUBMIT SAMPLE TO OWNER'S REPRESENTATIVE PRIOR TO LAYING OUT FORMS. INSTALL CONCRETE FLATWORK PER RECOMMENDATIONS OF GEOTECHNICAL REPORTS. IN CASE OF CONFLICT BETWEEN SOILS REPORT AND DETAILS, THE MOST STRINGENT REQUIREMENTS WILL APPLY.
- ALL PATHWAYS SHALL HAVE A MAXIMUM SLOPE OF 5% IN THE DIRECTION OF TRAVEL AND A MAXIMUM CROSS-SLOPE OF 2%.

**LANDSCAPE CONSTRUCTION SCHEDULE:**

KEY	ITEM / DESCRIPTION	COLOR / SRI	FINISH	SUPPLIER	COMMENTS
L-01	DECOMPOSED GRANITE STABILIZED-PEDESTRIAN	"SUNSET GOLD"	N/A	SOUTHWEST BOULDER AND STONE 760-328-5877	SEE DETAIL1/SP-L-11
L-02	DECOMPOSED GRANITE STABILIZED-VEHICULAR	"SUNSET GOLD"	N/A	SOUTHWEST BOULDER AND STONE 760-328-5877	SEE DETAIL2/SP-L-11
L-03	CONCRETE EDGE	NATURAL	N/A	--	SEE DETAIL1,2 /SP-L-11

**WALL, FENCE & GATE CONSTRUCTION SCHEDULE:**

KEY	ITEM / DESCRIPTION	COLOR / SRI	FINISH	SUPPLIER	COMMENTS
W-01	CONCRETE SEATWALL WITH SIERRA COBBLESTONE 3"-5" VENEER	NATURAL	N/A	SOUTHWEST BOULDER AND STONE 760-328-5877	SEE DETAIL 3/SP-L-11
W-02	10' WIDE VEHICULAR GATE	TBD.	"STEEL"	--	SEE DETAIL 4/SP-L-12
W-03	TWO RAIL POST AND RAIL CEDAR FENCE	NATURAL	N/A	N/A	SEE DETAIL 5/SP-L-11
W-04	REMOVABLE BOLLARD	NATURAL	N/A	N/A	SEE DETAIL 1/SP-L-12

**SITE AMENITY SCHEDULE:**

KEY	ITEM / DESCRIPTION	COLOR / SRI	FINISH	SUPPLIER	COMMENTS
A-01	COR-TEN STEEL INFORMATIONAL SIGN	NATURAL	--	--	SEE DETAIL 8/SP-L-11
A-02	RECLAIMED WOOD LOG BENCH	NATURAL	--	ANGEL CITY LUMBER (213) 373-1651	SEE DETAIL 6/SP-L-11
A-03	"CAMERON SURFACE BOULDER" SMALL (3' X 1.5')	NATURAL	N/A	SOUTHWEST BOULDER AND STONE (760) 328-5877	SEE DETAIL 7/SP-L-11
A-04	"CAMERON SURFACE BOULDER" MEDIUM (3'-4' X 2'-3')	NATURAL	N/A	SOUTHWEST BOULDER AND STONE (760) 328-5877	SEE DETAIL 7/SP-L-11
A-05	"CAMERON SURFACE BOULDER" LARGE (4'-5' X 3')	NATURAL	N/A	SOUTHWEST BOULDER AND STONE (760) 328-5877	SEE DETAIL 7/SP-L-11
A-06	"SIERRA COBBLESTONE" 3"-5"	NATURAL	N/A	SOUTHWEST BOULDER AND STONE (760) 328-5877	N/A

**PRELIMINARY - NOT FOR CONSTRUCTION**

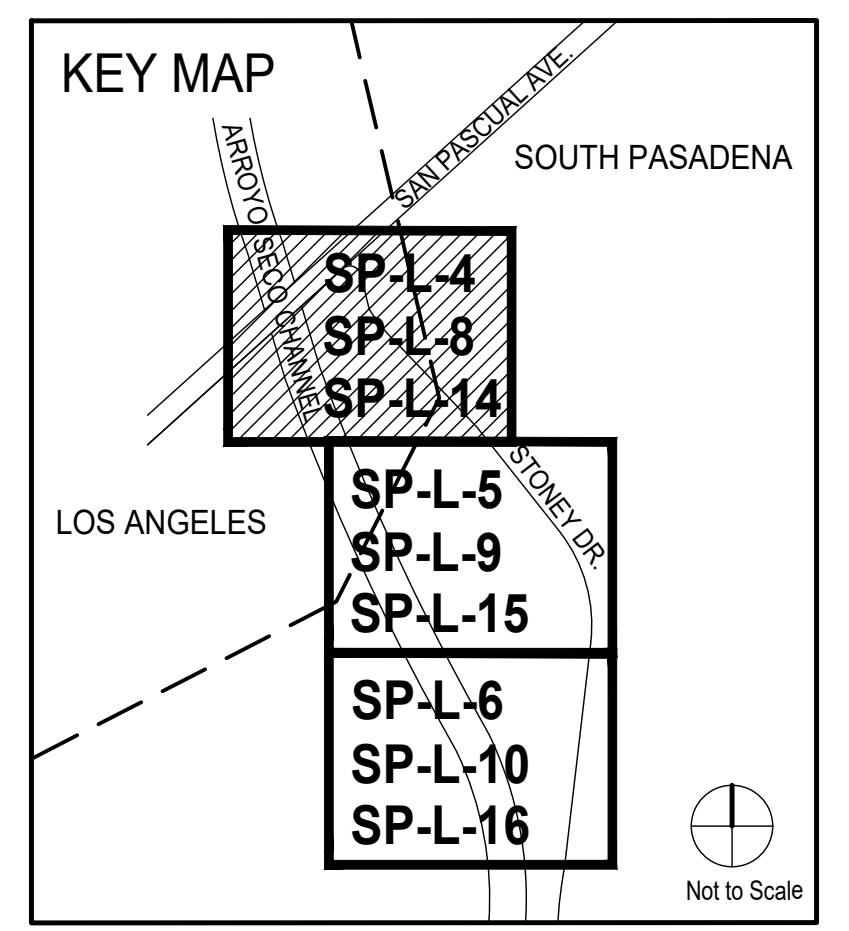
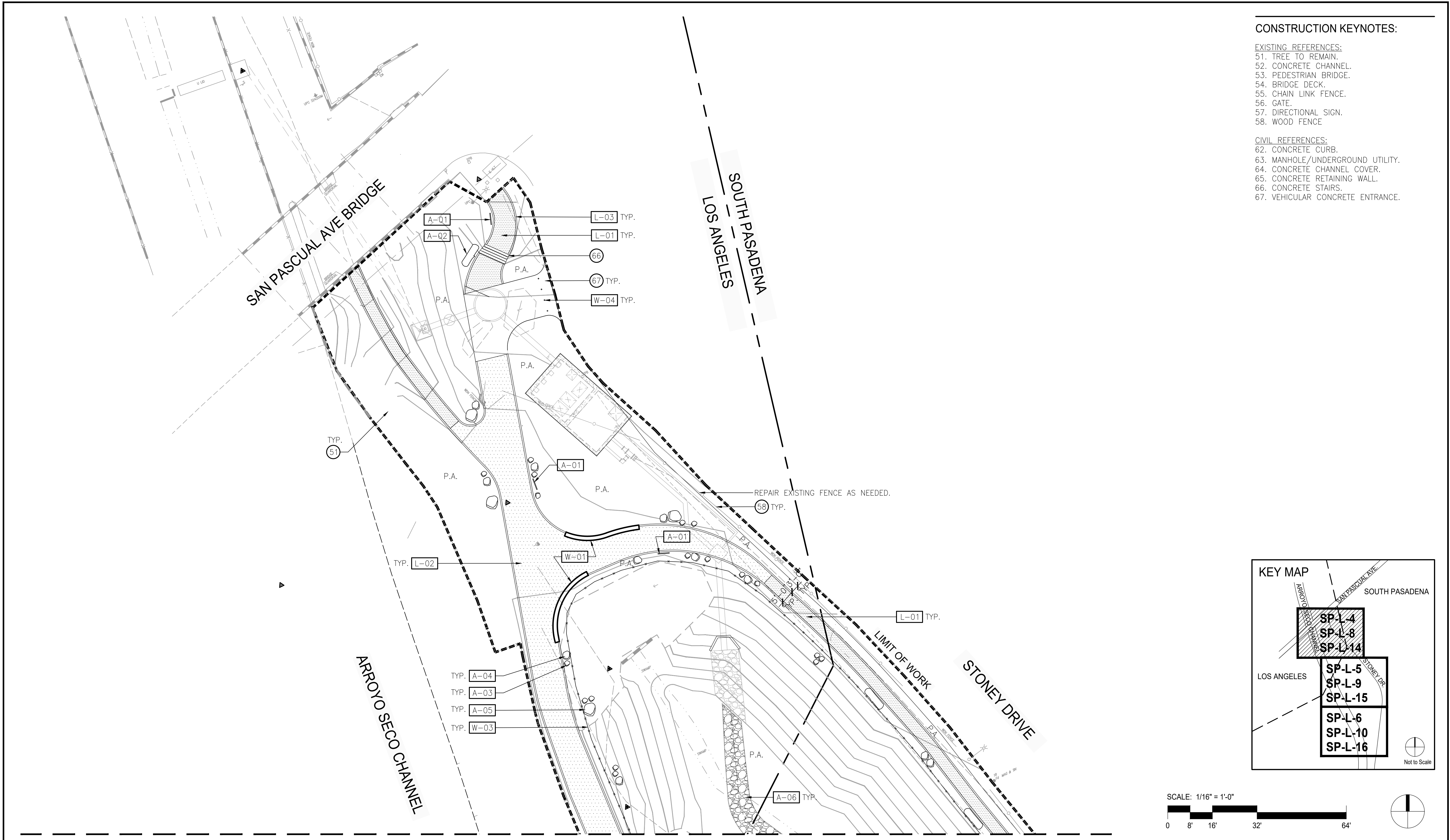
06/03/2024

DRAWN BY AMT	REVISIONS					CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS						
DESIGNED BY AMT	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SP-L-7	
CHECKED BY CAS							SHEET TITLE	LANDSCAPE CONSTRUCTION SCHEDULE AND NOTES		22	OF	49
			AS BUILT				SCALE	AS SHOWN		ACCOUNT NUMBER	XXXXXX	
										DWG. NO.		

Date: April 22, 2020 Z:\SHARED\LOS ANGELES\PRODUCTION\2024\122001\CAD\122001\_SP\_L2-7.DWG

**CONSTRUCTION KEYNOTES:**

- EXISTING REFERENCES:**  
 51. TREE TO REMAIN.  
 52. CONCRETE CHANNEL.  
 53. PEDESTRIAN BRIDGE.  
 54. BRIDGE DECK.  
 55. CHAIN LINK FENCE.  
 56. GATE.  
 57. DIRECTIONAL SIGN.  
 58. WOOD FENCE
- CIVIL REFERENCES:**  
 62. CONCRETE CURB.  
 63. MANHOLE/UNDERGROUND UTILITY.  
 64. CONCRETE CHANNEL COVER.  
 65. CONCRETE RETAINING WALL.  
 66. CONCRETE STAIRS.  
 67. VEHICULAR CONCRETE ENTRANCE.



MATCH LINE - SEE SHEET SP-L-9

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY	REVISIONS				
	MARK	DATE	DESCRIPTION	BY	CHKD./APPROVED
AMT					
DESIGNED BY					
AMT					
CHECKED BY					
CAS			AS BUILT		

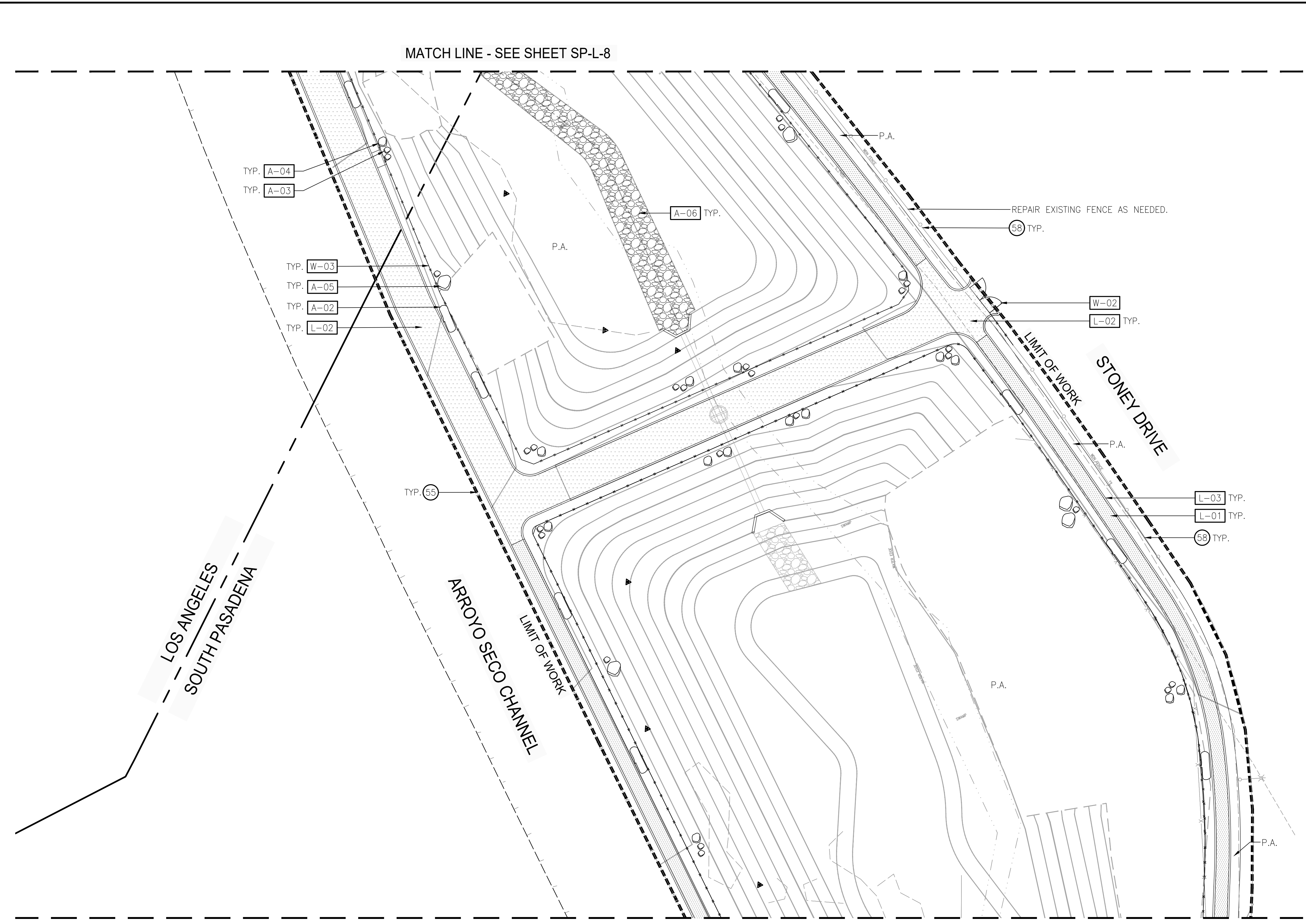
CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET <b>SP-L-8</b>
SHEET TITLE	LANDSCAPE CONSTRUCTION PLAN		<b>23</b> OF <b>49</b>
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
DWG. NO.			

Date: April 22, 2020 Z:\SHARED\LOS ANGELES\PRODUCTION\2024\122001\CAD\122001\_SP\_L2-8\_L2-10.DWG

**CONSTRUCTION KEYNOTES:**

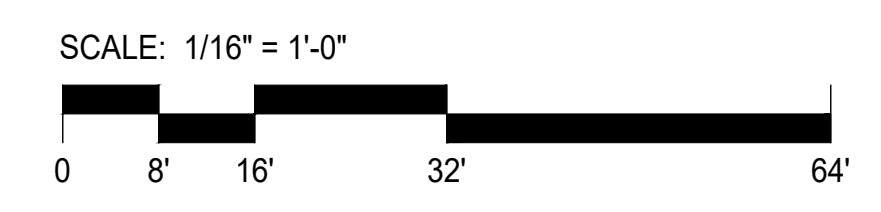
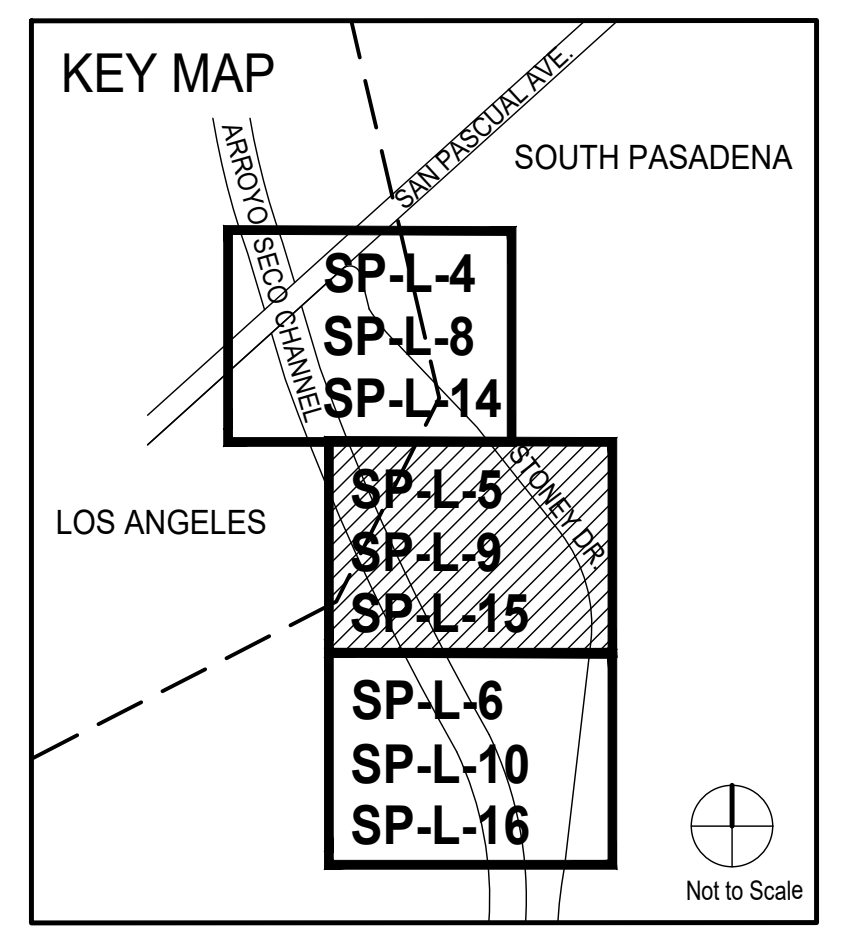
- EXISTING REFERENCES:  
 51. TREE TO REMAIN.  
 52. CONCRETE CHANNEL.  
 53. PEDESTRIAN BRIDGE.  
 54. BRIDGE DECK.  
 55. CHAIN LINK FENCE.  
 56. GATE.  
 57. DIRECTIONAL SIGN.  
 58. WOOD FENCE

- CIVIL REFERENCES:  
 62. CONCRETE CURB.  
 63. MANHOLE/UNDERGROUND UTILITY.  
 64. CONCRETE CHANNEL COVER.  
 65. CONCRETE RETAINING WALL.  
 66. CONCRETE STAIRS.  
 67. VEHICULAR CONCRETE ENTRANCE.



MATCH LINE - SEE SHEET SP-L-8

MATCH LINE - SEE SHEET SP-L-10



**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

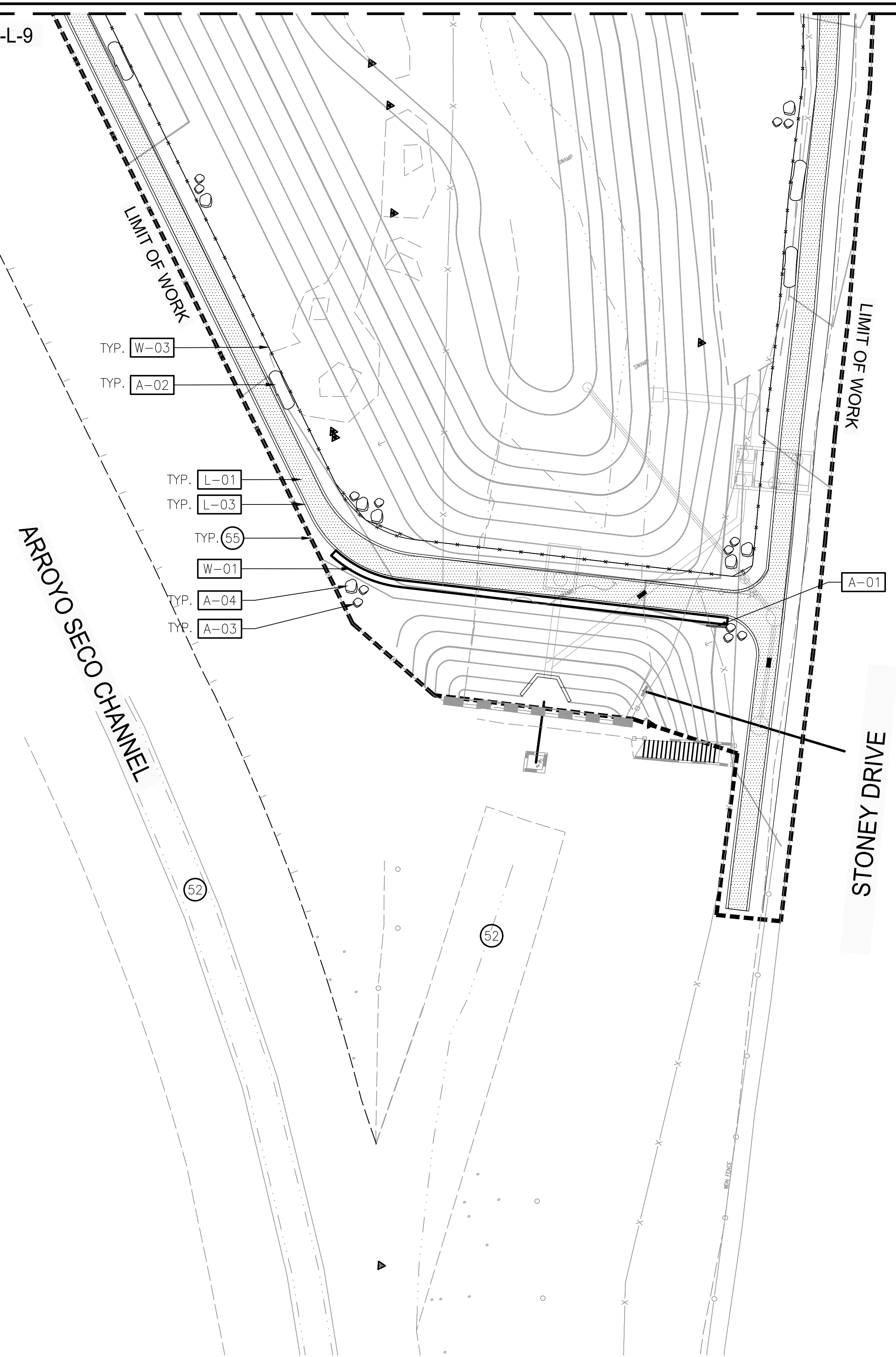
DRAWN BY	REVISIONS				
	MARK	DATE	DESCRIPTION	BY	CHKD. APPROVED
AMT					
DESIGNED BY					
AMT					
CHECKED BY					
CAS		AS BUILT			

CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET <b>SP-L-9</b>
SHEET TITLE	LANDSCAPE CONSTRUCTION PLAN		<b>24</b> OF <b>49</b>
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
DWG. NO.			

Date: April 22, 2020 Z:\SHARED\LOS ANGELES\PRODUCTION\2024\122001\CAD\122001\_SP\_L2-8\_L2-10.DWG

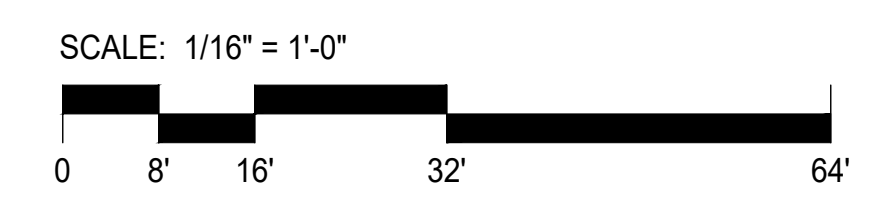
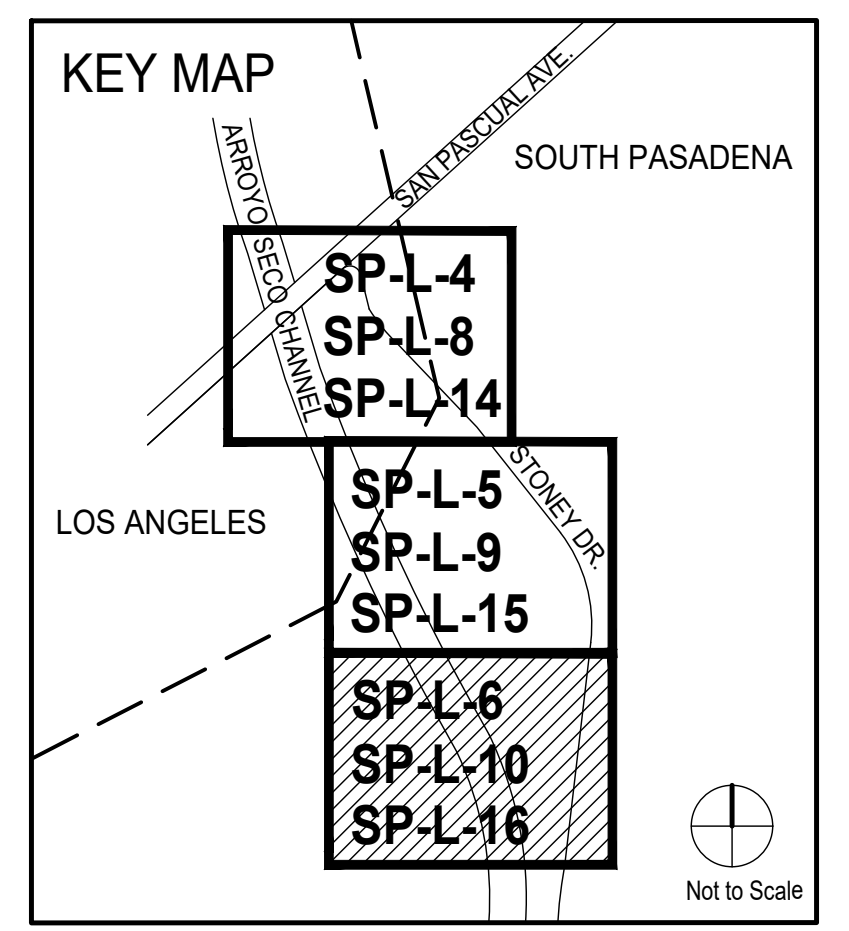


MATCH LINE - SEE SHEET SP-L-9



**CONSTRUCTION KEYNOTES:**

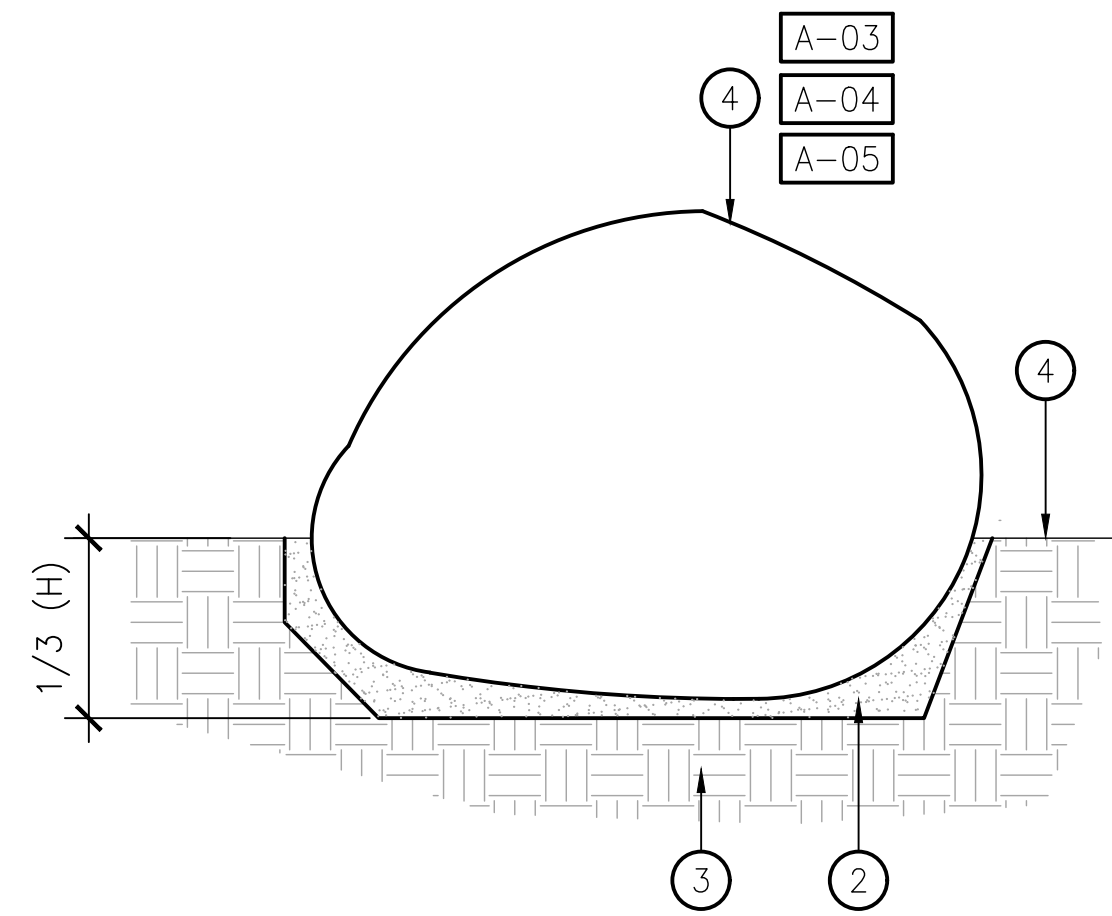
- EXISTING REFERENCES:**  
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 52. CONCRETE CHANNEL.  
 53. PEDESTRIAN BRIDGE.  
 54. BRIDGE DECK.  
 55. CHAIN LINK FENCE.  
 56. GATE.  
 57. DIRECTIONAL SIGN.  
 58. WOOD FENCE
- CIVIL REFERENCES:**  
 62. CONCRETE CURB.  
 63. MANHOLE/UNDERGROUND UTILITY.  
 64. CONCRETE CHANNEL COVER.  
 65. CONCRETE RETAINING WALL.  
 66. CONCRETE STAIRS.  
 67. VEHICULAR CONCRETE ENTRANCE.



**PRELIMINARY -NOT FOR CONSTRUCTION**  
 06/03/2024

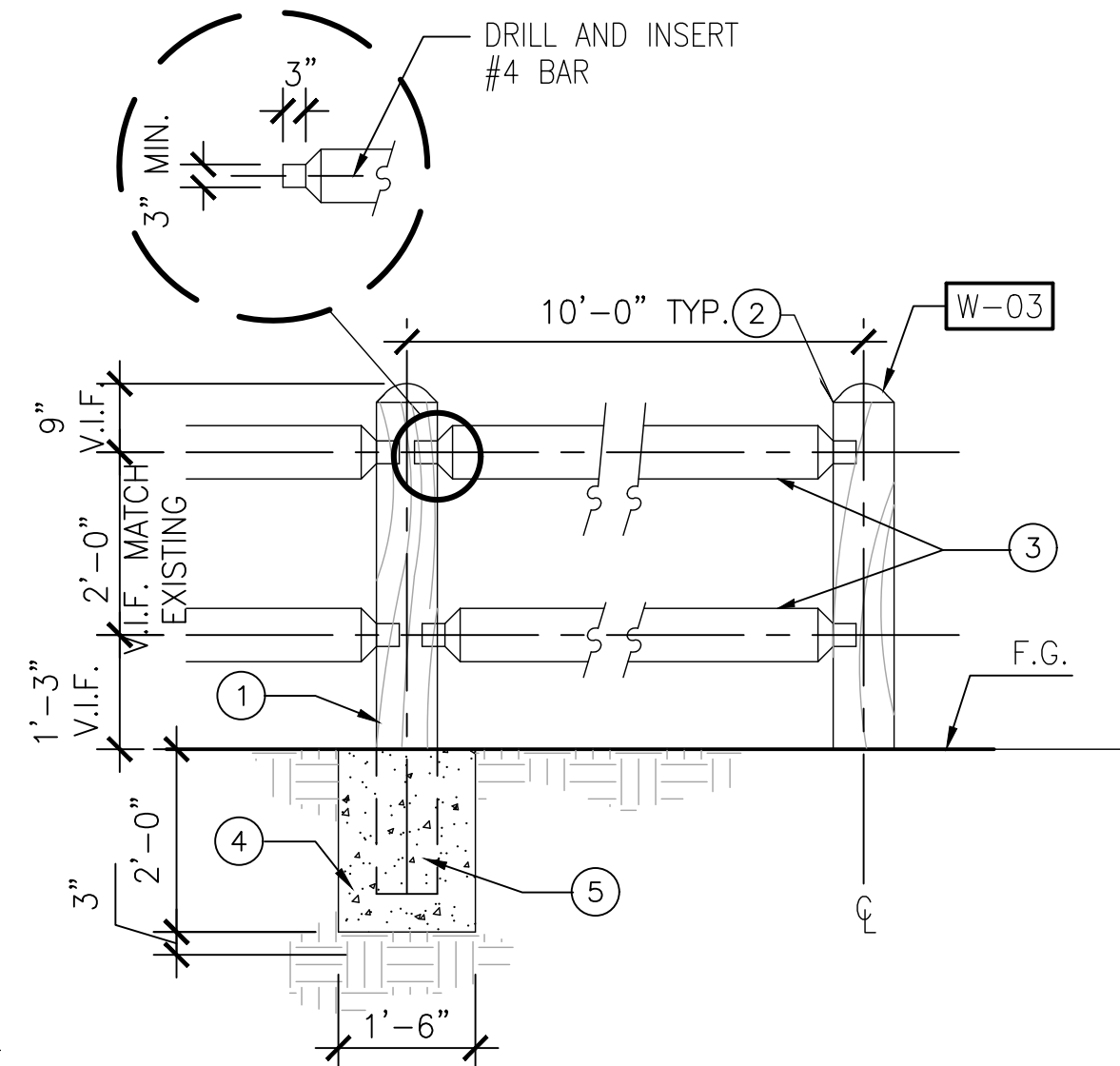
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MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	ACCOUNT NUMBER	SHEET	NO.
AMT						SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	XXXXXX	SP-L-10	25 OF 49
DESIGNED BY						SHEET TITLE			
AMT						LANDSCAPE CONSTRUCTION PLAN			
CHECKED BY						SCALE		DWG. NO.	
CAS		AS BUILT				AS SHOWN			

Date: April 22, 2020 Z:\SHARED\LOS ANGELES\PRODUCTION\2024\122001\CAD\122001\_SP-L2-8\_L2-10.DWG



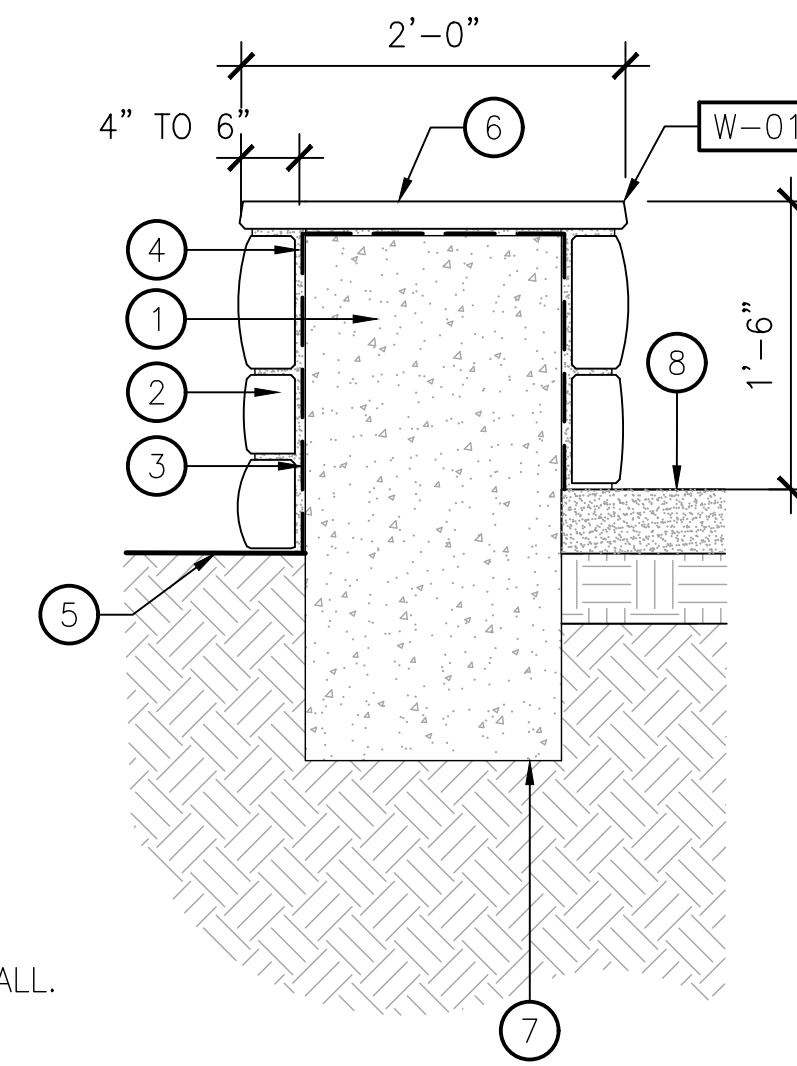
- LEGEND**
- BOULDER.
  - 3" MIN. SAND SETTING BED.
  - SUBGRADE COMPACTED PER GEOTECHNICAL REPORT.
  - PLANTING AREA.

**7 BOULDER INSTALLATION [A-03, A-04, A-05]**  
SCALE: NTS



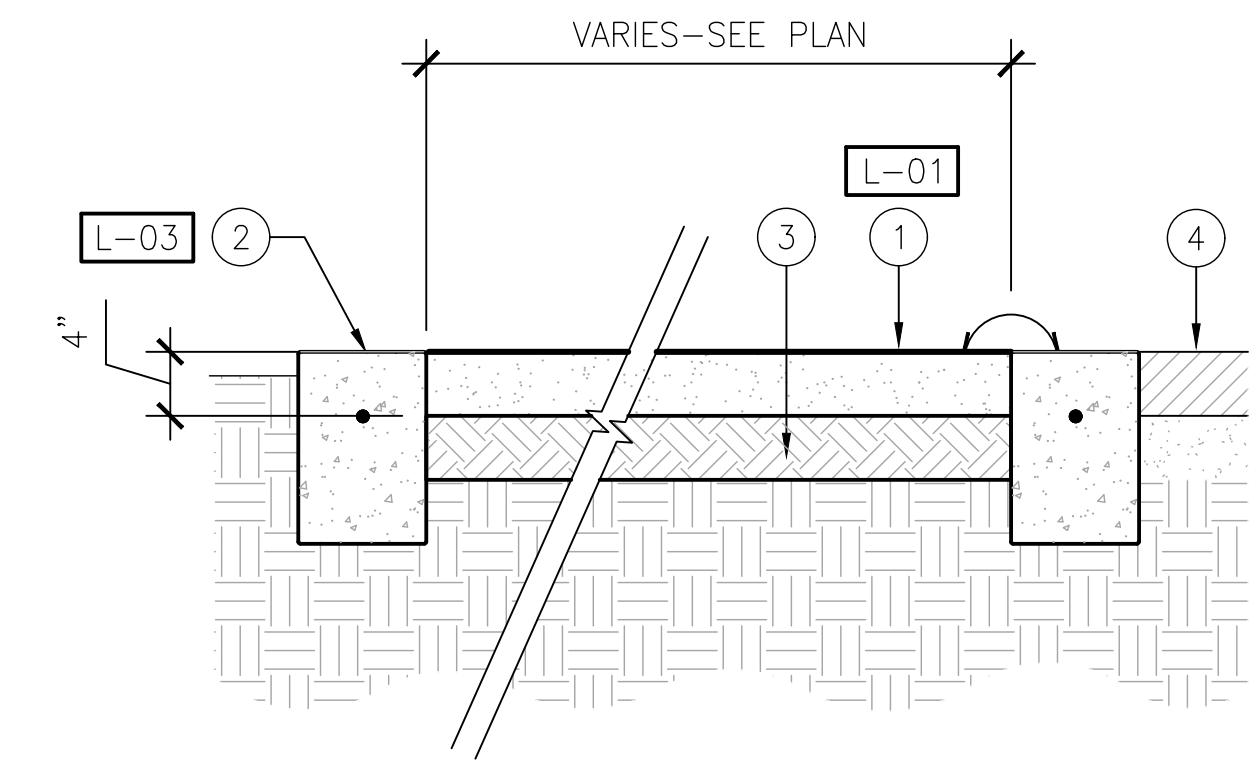
- LEGEND**
- 7 1/2" DIA. X 6' TALL DOMED POST CORED TO ACCEPT RAILS.
  - 3" ROUNDED TOP, TYP.
  - (2) 4 1/2" DIA X 10' LONG. LODGEPOLE PINE RAILS.
  - CONCRETE FOOTING.
  - POST TREATED W/COPPER STANDARD FINISH NAPHENATE OR PENTA SOLUTION, TYP.

**5 POST AND RAIL FENCE [W-01]**  
SCALE: 1/2" = 1'-0"



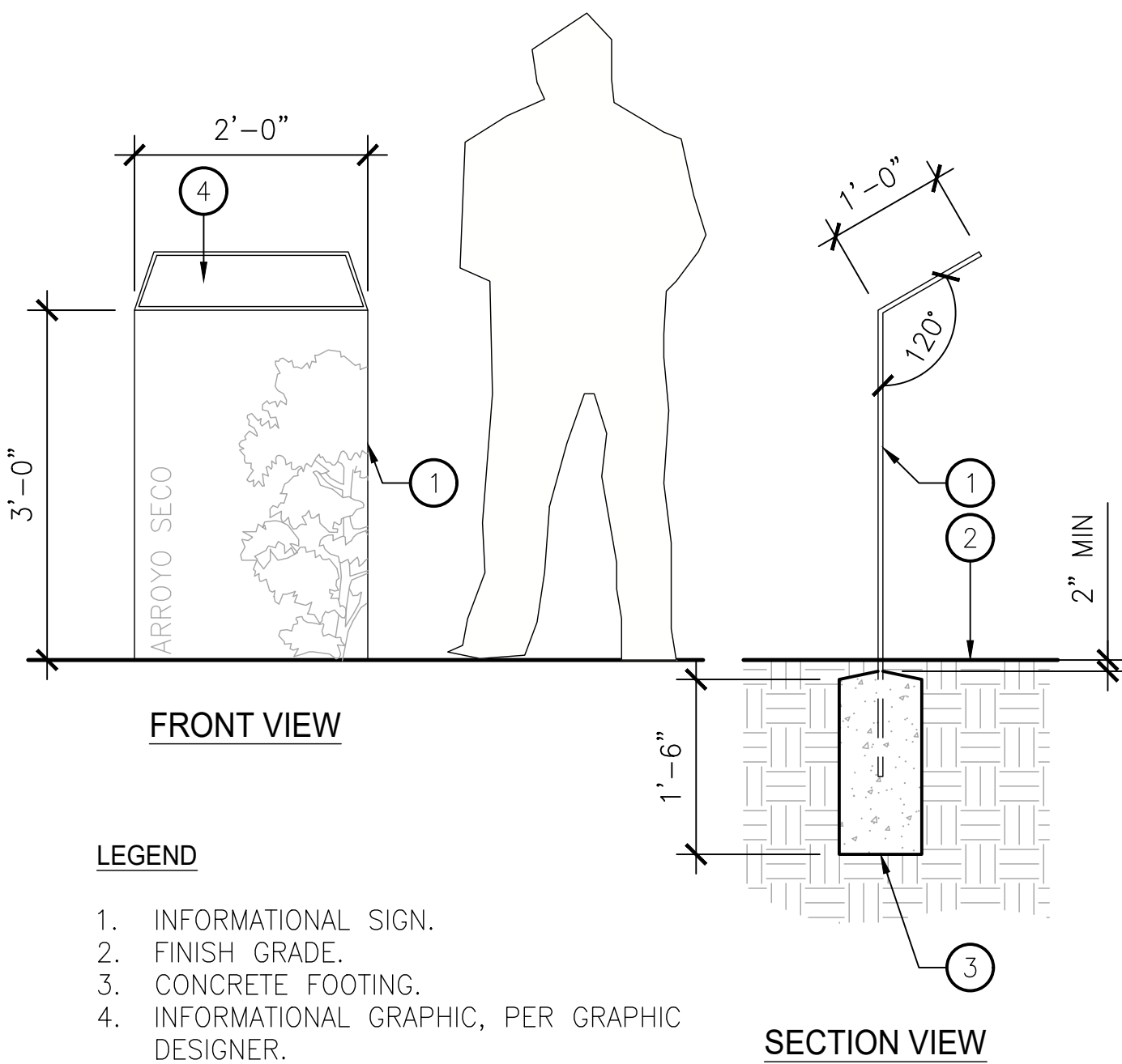
- LEGEND**
- CONCRETE SEATWALL.
  - STONE VENEER.
  - WIRE LATH.
  - MORTAR SET BED.
  - FINISH GRADE.
  - STONE CAP.
  - CONCRETE FOOTING.
  - FINISH SURFACE.

**3 CONCRETE WALL W/ STONE VENNER [W-01]**  
SCALE: 1" = 1'-0"



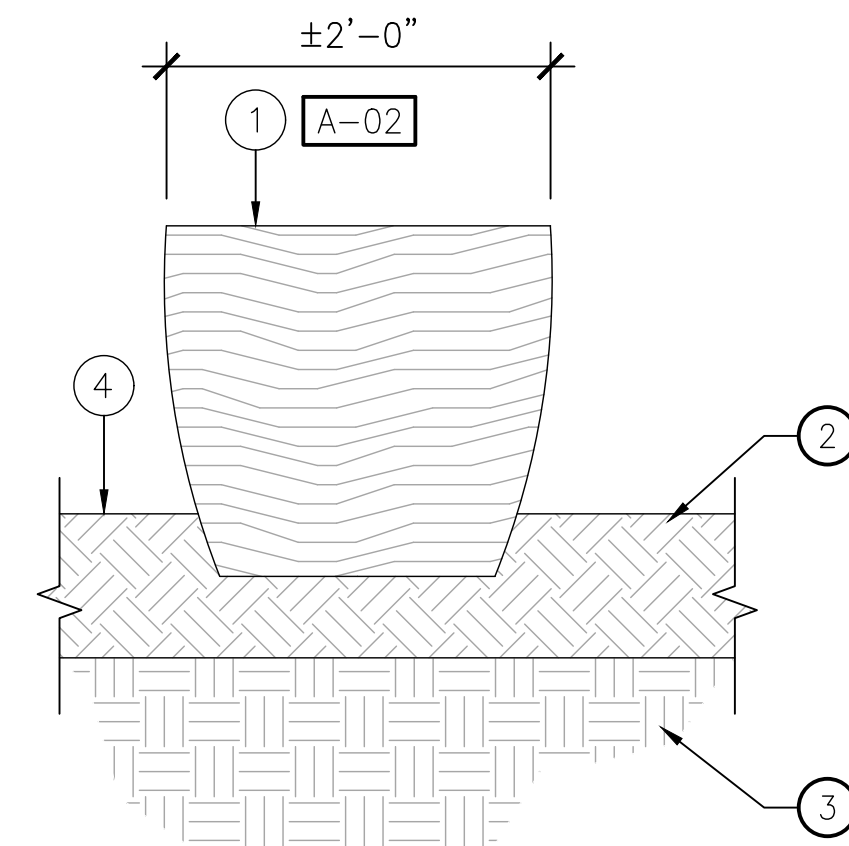
- LEGEND**
- STABILIZED D.G. SURFACE.
  - CONCRETE EDGE.
  - SUBGRADE COMPACTED PER GEOTECHNICAL REPORT.
  - ADJ. PAVED SURFACE. WHERE D.G. IS ADJ. WALKABLE SURFACE, TOP OF D.G. IS TO BE LEVEL WITH PAVEMENT'S F.S.

**1 DECOMPOSED GRANITE SURFACE-PEDESTRIAN**  
SCALE: 1" = 1'-0"



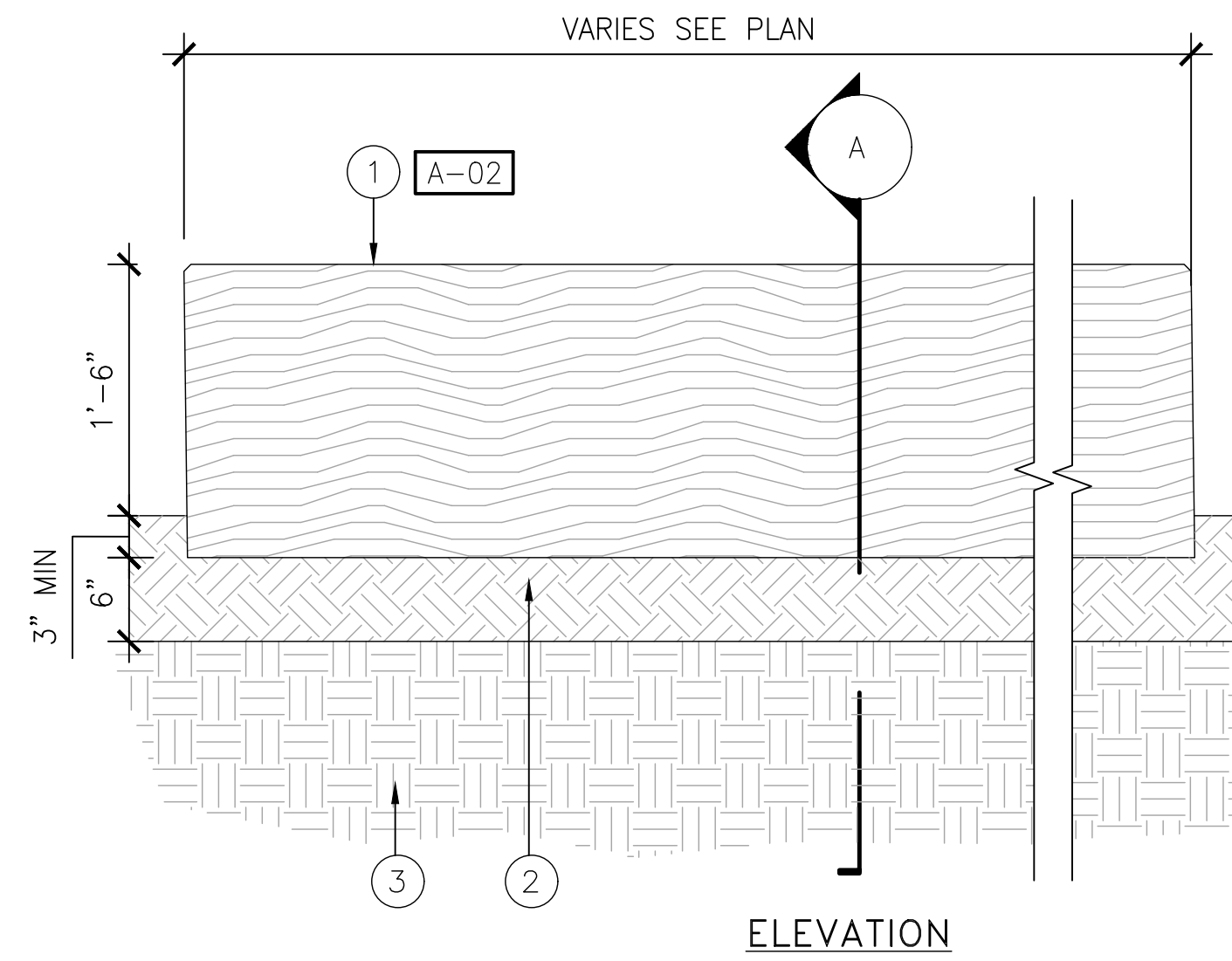
- LEGEND**
- INFORMATIONAL SIGN.
  - FINISH GRADE.
  - CONCRETE FOOTING.
  - INFORMATIONAL GRAPHIC, PER GRAPHIC DESIGNER.

**8 INFORMATIONAL SIGN [A-01]**  
SCALE: 3/4" = 1'-0"



- SECTION A: AT PLANTING AND D.G.**
- LEGEND**
- RECLAIMED LOG BENCH.
  - SUBGRADE COMPACTED PER GEOTECHNICAL REPORT.
  - SITE SOIL.
  - FINISH GRADE.

**6 RECLAIMED WOOD LOG BENCH [A-02]**  
SCALE: 1" = 1'-0"

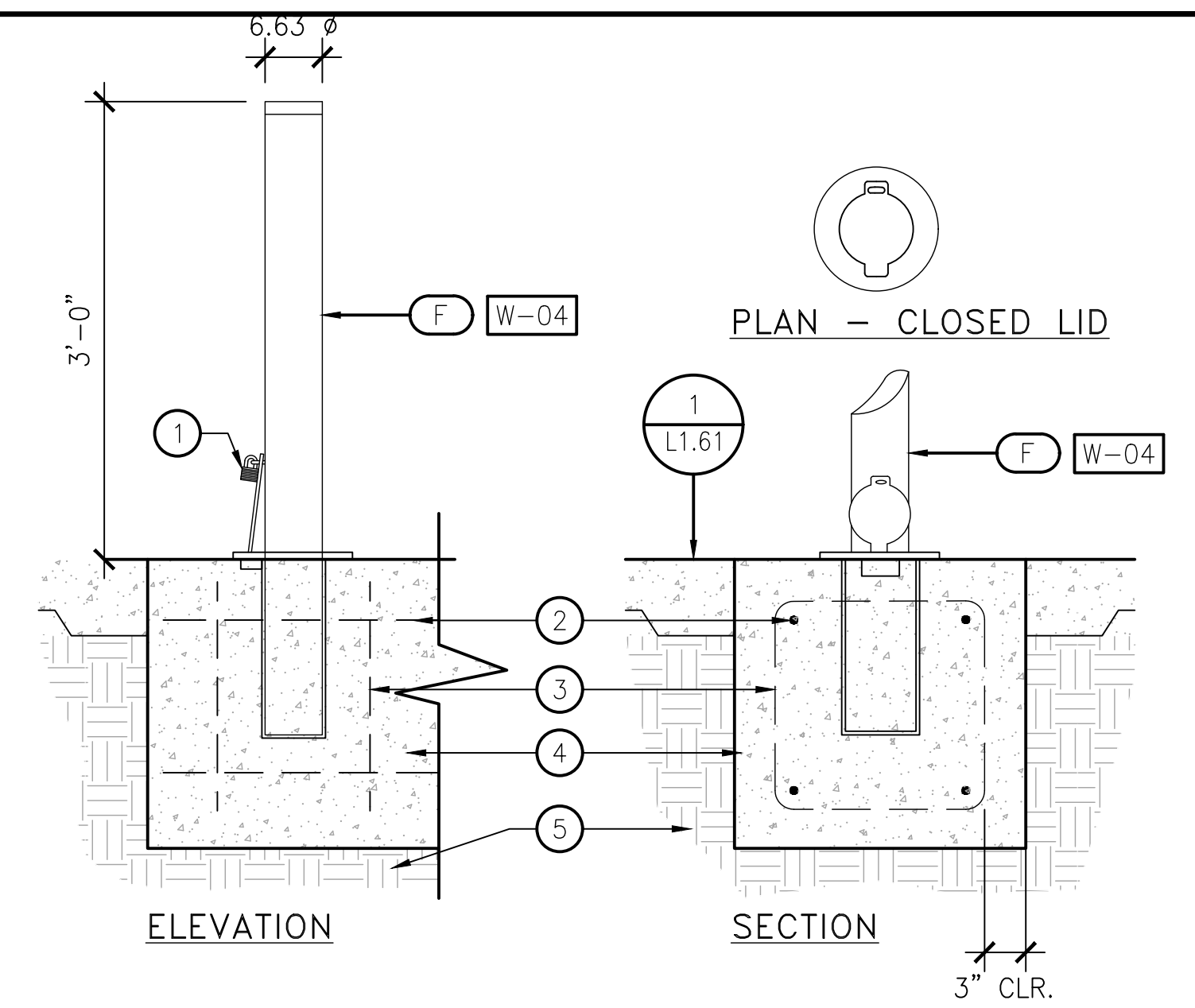


- LEGEND**
- STABILIZED D.G. SURFACE.
  - STEEL EDGING.
  - CLASS II AGGREGATE BASE.
  - PLANTING AREA.

**2 DECOMPOSED GRANITE SURFACE-VEHICULAR**  
SCALE: 1" = 1'-0"

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	ACCOUNT NUMBER	SHEET	NO.
AMT						SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	XXXXXX	26	49
AMT						LANDSCAPE CONSTRUCTION DETAILS			
CAS		AS BUILT				SCALE AS SHOWN			



**LEGEND**

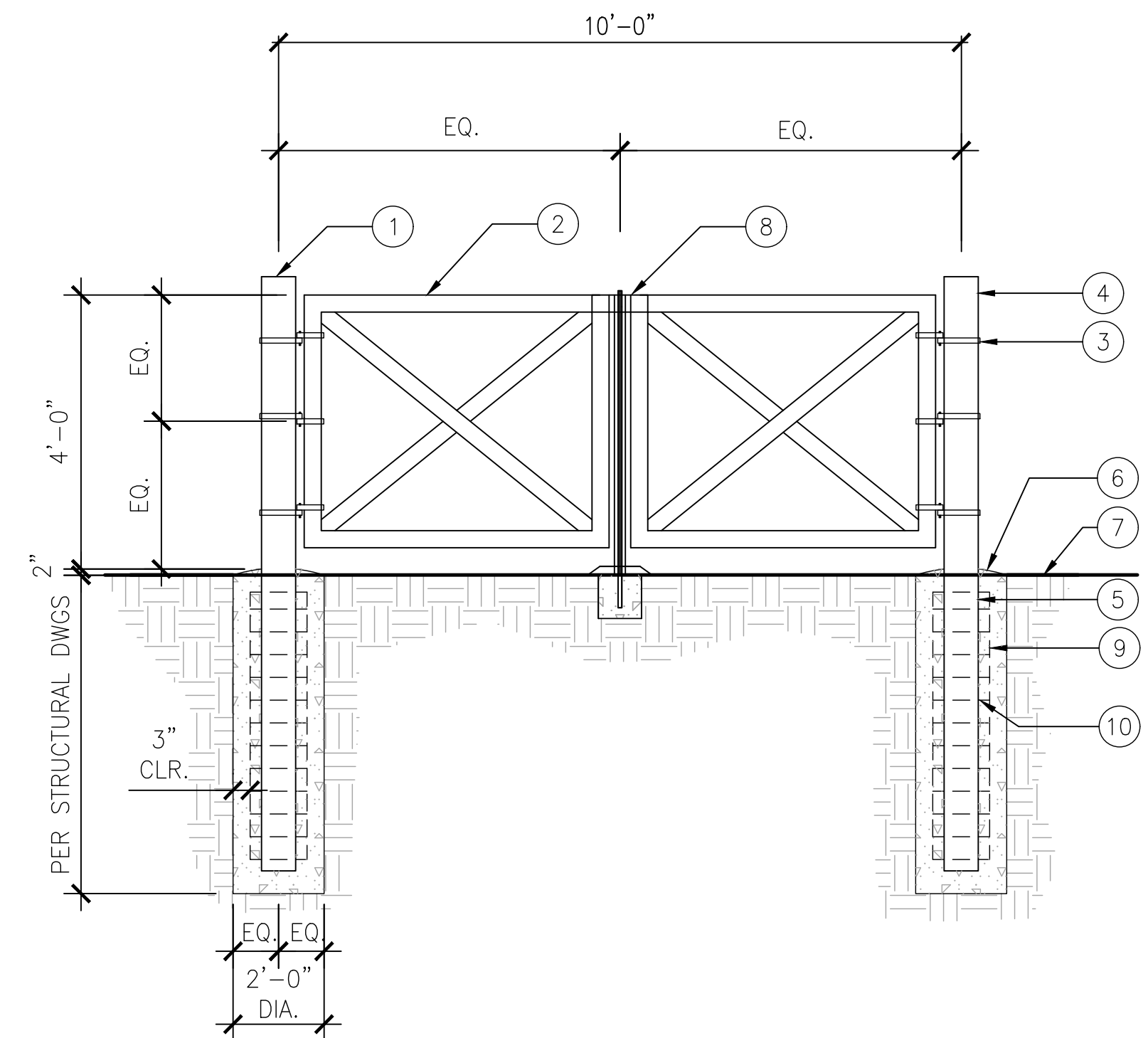
1. CAL PIPE 6" EXTERNAL PADLOCK/SLEEVE
2. #4 REBAR CONTINUOUS.
3. #4 REBAR STIRRUP, 12" O.C.
4. CONTINUOUS CONC. FOOTING PER CIVIL.
5. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT.

**1 REMOVABLE BOLLARD**  
SCALE: 1" = 1'-0"

xxxxxx.dwg

**LEGEND**

1. 6" SQUARE TUBE STEEL WITH CORTEN FINISH.
2. 3" SQUARE TUBE STEEL WITH CORTEN FINISH.
3. 180 DEGREE HINGE (2).
4. POST PER SPECIFICATIONS.
5. PIPE SLEEVE IN CONCRETE
6. CONCRETE FOOTING.
7. FINISH GRADE.
8. 2"x1"x1/8"-6" LONG STL GALV. ANGLE WELDED TO ONE SIDE OF GATE.
9. (4) #6 VERTICAL.
10. #3 TIES @ 6" O.C.



**4 6' HIGH WIDE DOUBLE SWING GATE (TYP)**  
SCALE: 1/2" = 1'-0"

114008\_Dble Swing Veh Gate.dwg

**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
AMT	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET	SP-L-12
DESIGNED BY							SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	27	OF 49
AMT							SHEET TITLE		
CHECKED BY							LANDSCAPE CONSTRUCTION DETAILS		
CAS			AS BUILT				SCALE	AS SHOWN	ACCOUNT NUMBER
									XXXXXX
								DWG. NO.	

Date: April 22, 2020 Z:\SHARED\LOS ANGELES\PRODUCTION\2024\122001\CAD\122001\_SP\_L12-11.DWG

**PLANTING NOTES:**

1. THE PLANTING PLAN IS DIAGRAMMATIC. ALL PLANT LOCATIONS ARE APPROXIMATE. ON CENTER SPACING AND SYMBOLS TAKE PRECEDENCE OVER PLANT QUANTITIES SPECIFIED. QUANTITIES, IF SHOWN ON THE PLANTING PLAN ARE APPROXIMATE AND ARE FOR REFERENCE ONLY. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF DISCREPANCIES BETWEEN QUANTITIES AND THE SYMBOLS SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL PLANT COUNTS AND SQUARE FOOTAGES.
2. TREE LOCATION MAY BE ADJUSTED TO AVOID CONFLICTS WITH UNDERGROUND UTILITIES. CONSULT WITH OWNER'S REPRESENTATIVE PRIOR TO ADJUSTMENT OF TREE LOCATIONS, ESPECIALLY THOSE ARRANGED ON A SPECIFIED MODULE OR IN A GRID PATTERN.
3. CONTRACTOR SHALL ACCOMPANY THE PROJECT AGRONOMIST TO THE SITE FOR THE PURPOSE OF TAKING SOIL SAMPLES, CONDUCTING PERCOLATION TESTS, AND REVIEWING EXISTING SITE CONDITIONS. THE QUANTITY OF SAMPLES ARE NOTED IN THE SPECIFICATIONS. SUBMIT SOIL TEST RESULTS AND RECOMMENDATIONS TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO SOIL PREPARATION. THIS REQUIREMENT APPLIES TO ALL SOILS AND CONDITIONS WITHIN THIS PROJECT. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO THE START OF CONSTRUCTION, FOR CLARIFICATION.
5. CONTRACTOR SHALL GIVE NOTICE OF PLANTING (3) BUSINESS DAYS PRIOR TO INSTALLATION. CONTRACTOR SHALL LAY OUT PLANT MATERIAL PRIOR TO INSTALLATION FOR OWNER'S REPRESENTATIVE'S REVIEW AND APPROVAL.
  - a. CENTERPOINTS OF TREES SHOULD BE STAKED WITH GRADE LATH STAKES. CONTAINER SIZE AND PLANT NAME SHALL BE NOTED ON EACH STAKE.
  - b. SHRUBS SHALL BE PLACED IN THEIR "FINAL" LOCATIONS.
  - c. OWNER'S REPRESENTATIVE HAS THE RIGHT TO ADJUST PLANT LOCATIONS AND SPACING UPON REVIEWING IN THE FIELD.
  - d. ALL PLANTED AREAS SHALL BE WEED FREE PRIOR TO PLANTING.
6. IF CONFLICTS ARISE BETWEEN ACTUAL SIZE OF PLANTING AREAS ON-SITE AND THOSE AREAS INDICATED ON DRAWINGS, CONTACT OWNER'S AUTHORIZED REPRESENTATIVE FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO OWNER'S AUTHORIZED REPRESENTATIVE IN A TIMELY FASHION MAY RESULT IN CONTRACTOR'S OWN LIABILITY TO RELOCATE PLANT MATERIALS.
7. REFER TO PLANTING DETAILS FOR ALL INSTALLATION AND STAKING REQUIREMENTS.
8. INSTALL TREES WITHIN 3' OF PAVEMENT OR STRUCTURES WITH ROOT CONTROL BARRIERS. UNLESS OTHERWISE SPECIFIED, A 12' LONG X 2' DEEP LINEAR BARRIER SHALL BE INSTALLED AT EDGE OF PAVEMENT/STRUCTURE, WITH LENGTH CENTERED AT THE TREE TRUNK.
9. NURSERY STAKES SHALL BE REMOVED AFTER PLANTING TREES AND STAKING OR GUYING AS SHOWN ON PLANS AND AS DIRECTED BY OWNER'S REPRESENTATIVE.
10. TREES PLANTED IN TURF AREAS SHALL HAVE TRUNKS PROTECTED WITH PERFORATED POLYETHYLENE TREE TRUNK PROTECTORS (ARBOR-GARD+ OR EQUAL).
11. CONTRACTOR IS RESPONSIBLE FOR PRUNING TREES AS DIRECTED BY OWNER'S REPRESENTATIVE. NO PRUNING IS TO BE DONE UNLESS DIRECTED.
12. TRIANGULAR SPACE GROUNDCOVERS AND SHRUBS, UNLESS OTHERWISE INDICATED ON DRAWINGS.
13. SEE DETAIL FOR PLACEMENT OF SHRUBS IN IRREGULARLY SHAPED PLANTING AREAS.

14. MULCH ALL AREAS (EXCEPT TURF, SLOPES 2:1 AND GREATER, ROOTED CUTTINGS, AND AS NOTED ON PLANS) WITH 3" LAYER OF SPECIFIED MATERIAL.
15. ALL SLOPES 2:1 OR GREATER SHALL BE STABILIZED WITH JUTE MESH PRIOR TO PLANTING. DO NOT INSTALL JUTE MESH ON SEEDED SLOPES.
16. WHERE GROUNDCOVER IS SHOWN ON PLANS: GROUNDCOVER PLANTING CONTINUES UNDER SHRUBS AND TREES AT SPECIFIED SPACING. DO NOT PLANT GROUNDCOVER IN SHRUB/TREE WATERING BASINS.
17. CONTRACTOR SHALL MAINTAIN ALL PLANTING FOR A PERIOD OF NINETY (90) DAYS AFTER COMPLETION AND ACCEPTANCE BY OWNER'S REPRESENTATIVE, UNLESS OTHERWISE NOTED IN SPECIFICATIONS. ALL AREAS SHOULD BE KEPT CLEAN, WATERED AND WEED-FREE.
18. PRIOR TO END OF MAINTENANCE PERIOD, LANDSCAPE CONTRACTOR SHALL CONTACT OWNER AND ARRANGE A FINAL WALKTHROUGH INSPECTION BY OWNER'S REPRESENTATIVE. OWNER MUST ACCEPT ALL MAINTAINED AREAS IN WRITING PRIOR TO END OF MAINTENANCE PERIOD. OWNER SHALL BE RESPONSIBLE FOR FUTURE MAINTENANCE AFTER THE MAINTENANCE PERIOD AND FINAL WALK THROUGH.

**TREE LEGEND:**

SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	SALIX LASIOLEPSIS "ARROYO WILLOW"	15 GAL 3'x4'	HIGH (0.7)	X X	5 /SR-L-14
	PLATANUS RACEMOSA "WESTERN SYCAMORE"	15 GAL 5'x2.5'	MODERATE (0.5)	X X	5 /SR-L-14
	QUERCUS AGRIFOLIA "COAST LIVE OAK"	15 GAL 4'x3'	LOW (0.3)	X X	5 /SR-L-14
	SAMBUCUS NIGRA SSP. CAERULEA "BLUE ELDERBERRY"	15 GAL 4'x3'	LOW (0.3)	X X	5 /SR-L-14
	CERCIS OCCIDENTALIS "WESTERN REDBUD"	15 GAL 4'x3'	LOW (0.3)	X X	5 /SR-L-14

**SHRUB & GROUNDCOVER LEGEND: NATIVE MIX**

SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	ARTEMISIA CALIFORNICA "CALIFORNIA SAGEBRUSH"	5 GAL 10" X 8"	VERY LOW (0.1)	30" O.C. 25% OF TOTAL.	1, 2 /SP-L2-16
	ENCELIA CALIFORNICA "CALIFORNIA BRITTLEBUSH"	5 GAL 10" X 8"	VERY LOW (0.1)	36" O.C. 15% OF TOTAL.	1, 2 /SP-L2-16
	ASCLEPIAS FASCICULARIS "CALIFORNIA NARROWLEAF MILKWEED"	1 GAL 6" X 4"	VERY LOW (0.1)	18" O.C. 10% OF TOTAL.	1, 2 /SP-L2-16
	ERIOGONUM FASCICULATUM "CALIFORNIA BUCKWHEAT"	5 GAL 8" X 10"	VERY LOW (0.1)	36" O.C. 25% OF TOTAL.	1, 2 /SP-L2-16
	SALVIA APIANA "WHITE SAGE"	5 GAL 8" X 8"	VERY LOW (0.1)	36" O.C. 25% OF TOTAL.	1, 2 /SP-L2-16
	CLARKIA PURPUREA "PURPLE CLARKIA"	SEED	LOW (0.3)	1.0 LBS PER ACRE - HAND BROADCAST	1, 2 /SP-L2-16
	ESCHSCHOLZIA CALIFORNICA "CALIFORNIA POPPY"	SEED	LOW (0.3)	1.0 LBS PER ACRE - HAND BROADCAST	1, 2 /SP-L2-16
	LASTHENIA CALIFORNICA "CALIFORNIA GOLDFIELDS"	SEED	LOW (0.3)	1.0 LBS PER ACRE - HAND BROADCAST	1, 2 /SP-L2-16

**SHRUB & GROUNDCOVER LEGEND: LOW NATIVE MIX**

SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	ENCELIA CALIFORNICA "BUSH SUNFLOWER"	5 GAL 10" X 8"	LOW (0.3)	36" O.C. 15% OF TOTAL.	1, 2 /SP-L2-16
	EPILOBIUM CANUM "CALIFORNIA FUCHSIA"	5 GAL 8" X 8"	LOW (0.3)	30" O.C. 30% OF TOTAL.	1, 2 /SP-L2-16
	DUDLEYA VIRENS "BRIGHT GREEN DUDLEYA"	1 GAL 4" X 6"	LOW (0.3)	18" O.C. 15% OF TOTAL.	1, 2 /SP-L2-16
	ERIOGONUM FASCICULATUM "CALIFORNIA BUCKWHEAT"	5 GAL 8" X 10"	VERY LOW (0.1)	36" O.C. 40% OF TOTAL.	1, 2 /SP-L2-16
	ESCHSCHOLZIA CALIFORNICA "CALIFORNIA POPPY"	SEED	LOW (0.3)	1.0 LBS PER ACRE - HAND BROADCAST	1, 2 /SP-L2-16

**SHRUB & GROUNDCOVER LEGEND: RIPARIAN HERBACEOUS LAYER**

SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	ERYTHRANTHE GUTTATA "CREEK MONKEY FLOWER"	LINER 4" X 4"	INDETERMINATE	18" O.C. 30% OF TOTAL.	1, 2 /SR-L-14
	SCHOENOPLECTUS CALIFORNICUS "CALIFORNIA BULRUSH"	LINER 6" X 4"	INDETERMINATE	24" O.C. 70% OF TOTAL.	1, 2 /SR-L-14

**SHRUB & GROUNDCOVER LEGEND: CHAPARRAL**

SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	RHUS INTEGRIFOLIA "LEMONADE BERRY"	5 GAL 18" X 12"	LOW (0.3)	30" O.C. 15% OF TOTAL.	1, 2 /SR-L-14
	KECKIELLA CORDIFOLIA "CLIMBING PENSTEMON"	1 GAL 10" X 8"	LOW (0.3)	48" O.C. 15% OF TOTAL.	1, 2 /SR-L-14
	ARCTOSTAPHYLOS GLAUCA 'LOS ANGELES' "LOS ANGELES BIG BERRY MANZANITA"	1 GAL 10" X 8"	LOW (0.3)	60" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	SALVIA MELLIFERA "BLACK SAGE"	LINER 6" X 4"	LOW (0.3)	48" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	HETEROMELES ARBUTIFOLIA "TOYON"	5 GAL 18" X 12"	LOW (0.3)	48" O.C. 20% OF TOTAL.	1, 2 /SR-L-14

**SHRUB & GROUNDCOVER LEGEND: COASTAL SAGE SRUB**

SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	ENCELIA CALIFORNICA "CALIFORNIA BRITTLEBUSH"	LINER 6" X 4"	LOW (0.3)	36" O.C. 15% OF TOTAL.	1, 2 /SR-L-14
	SALVIA APIANA "WHITE SAGE"	1 GAL 8" X 8"	LOW (0.3)	36" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	ERIOGONUM FASCICULATUM "CALIFORNIA BUCKWHEAT"	1 GAL 8" X 10"	VERY LOW (0.1)	36" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	SALVIA MELLIFERA "BLACK SAGE"	LINER 6" X 4"	LOW (0.3)	36" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	ROSA CALIFORNICA "WILD ROSE"	1 GAL 8" X 8"	LOW (0.3)	48" O.C. 10% OF TOTAL.	1, 2 /SR-L-14

**SHRUB & GROUNDCOVER: MULEFAT SCRUB**

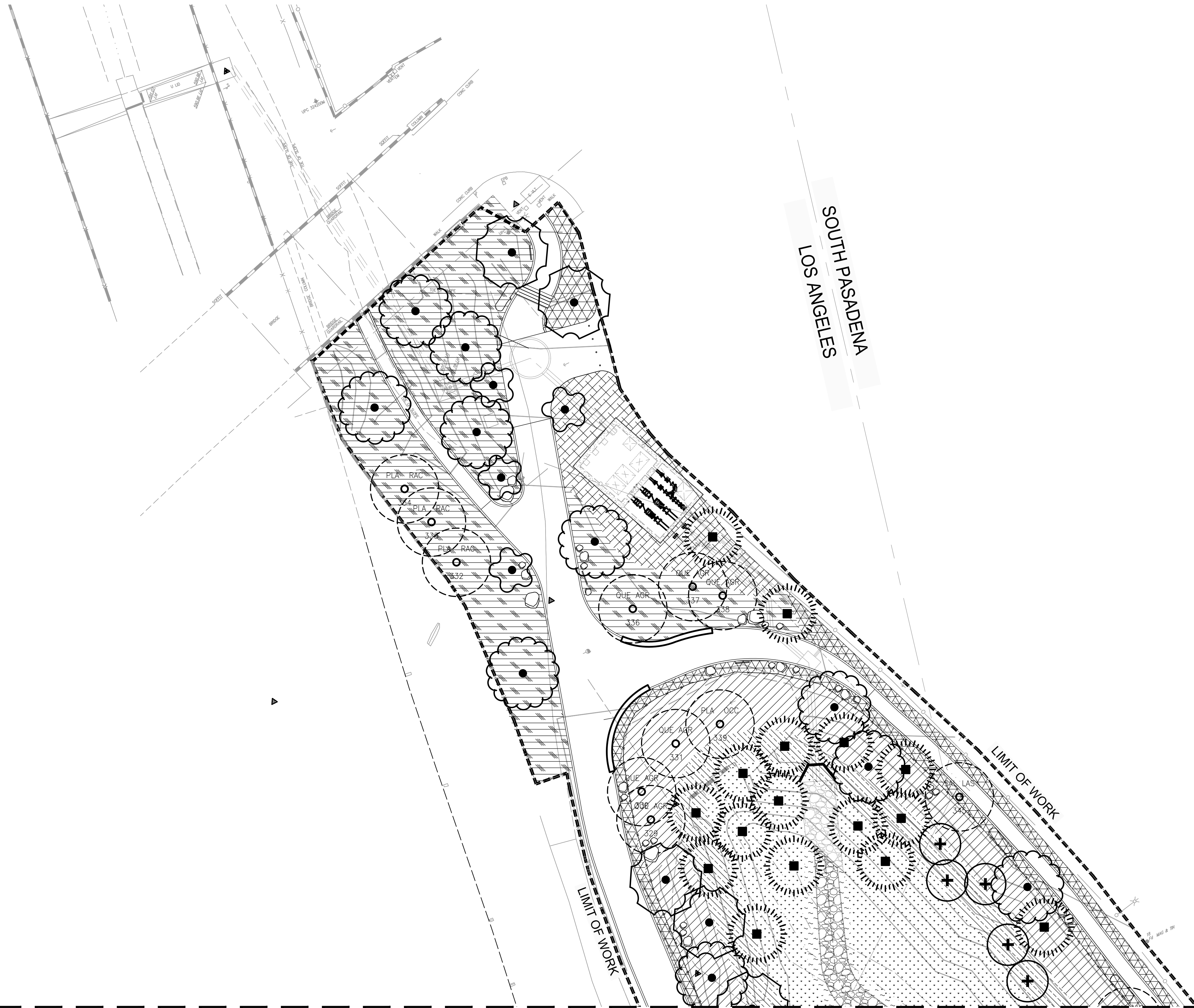
SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	ACMISPON GLABER "DEERWEED"	1 GAL 6" X 6"	VERY LOW (0.1)	30" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	ENCELIA CALIFORNICA "CALIFORNIA BRITTLEBUSH"	LINER 6" X 4"	LOW (0.3)	36" O.C. 25% OF TOTAL.	1, 2 /SR-L-14
	BACCHARIS SALICIFOLIA "MULEFAT"	1 GAL 10" X 8"	MODERATE (0.5)	36" O.C. 50% OF TOTAL.	1, 2 /SR-L-14

**SHRUB & GROUNDCOVER LEGEND: EMERGENT WETLAND**

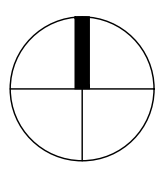
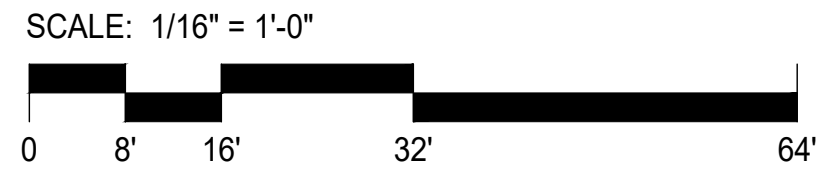
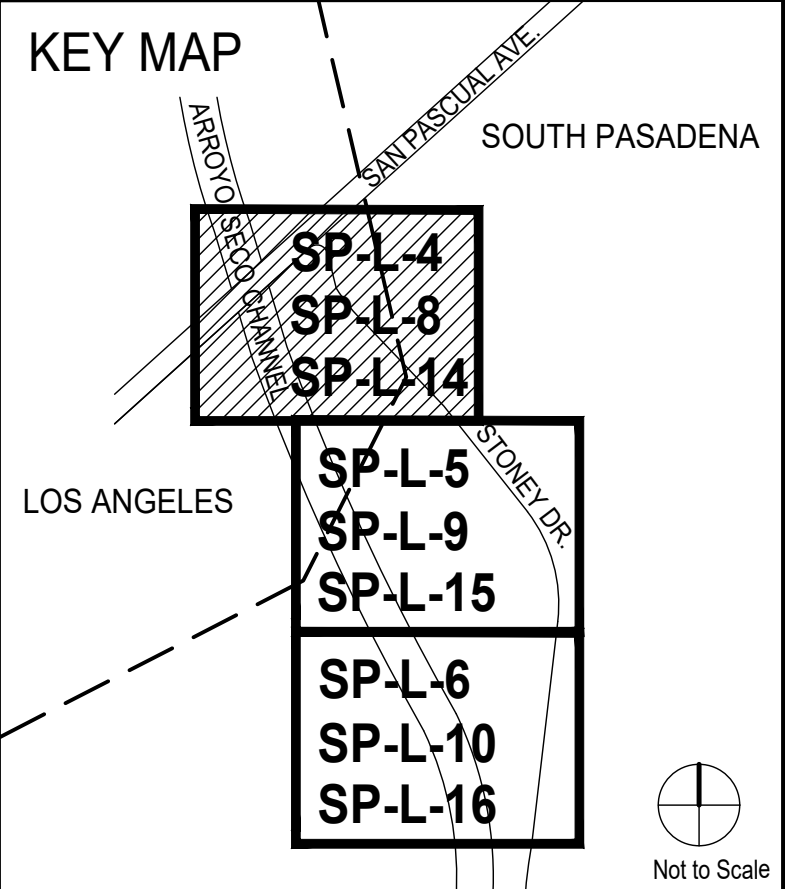
SYMBOL	BOTANICAL NAME "COMMON NAME"	SIZE (HTxSPR)	WUCOLS	COMMENTS	DETAIL
	APONOGETON DISTACHYOS "WATER HAWTHORN"	5 GAL 1'x1'	HIGH (0.7)	36" O.C. 15% OF TOTAL.	1, 2 /SR-L-14
	CYPERUS ERAGROSTIS "TALL FLATSEDGE"	LINER 6" X 4"	HIGH (0.7)	24" O.C. 10% OF TOTAL.	1, 2 /SR-L-14
	JUNCUS ARCTICUS VAR. MEXICANUS "MEXICAN RUSH"		MODERATE (0.5)	24" O.C. 10% OF TOTAL.	1, 2 /SR-L-14
	ANEMOPSIS CALIFORNICA "YERBA MANSA"		MODERATE (0.5)	24" O.C. 20% OF TOTAL.	1, 2 /SR-L-14
	JUNCUS EFFUSUS "BOG RUSH"		MODERATE (0.5)	24" O.C. 20% OF TOTAL.	1, 2 /SR-L-14
	ANEMOPSIS CALIFORNICA "YERBA MANSA"		MODERATE (0.5)	24" O.C. 10% OF TOTAL.	1, 2 /SR-L-14
	PLUCHEA ODORATA "SALT MARSH FLEABANE"		MODERATE (0.5)	24" O.C. 15% OF TOTAL.	1, 2 /SR-L-14

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY AMT	REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	SHEET SP-L-13
DESIGNED BY AMT							SHEET TITLE LANDSCAPE PLANTING LEGEND AND NOTES	28 OF 49
CHECKED BY CAS			AS BUILT				SCALE AS SHOWN	DWG. NO. ACCOUNT NUMBER XXXXXX



SOUTH PASADENA  
LOS ANGELES



MATCH LINE - SEE SHEET SP-L-15

**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY	REVISIONS				
	MARK	DATE	DESCRIPTION	BY	CHKD. APPROVED
AMT					
DESIGNED BY					
AMT					
CHECKED BY					
CAS		AS BUILT			

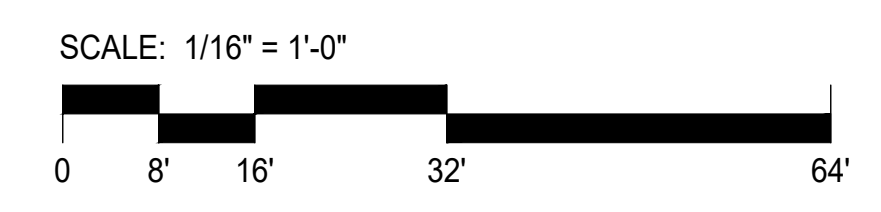
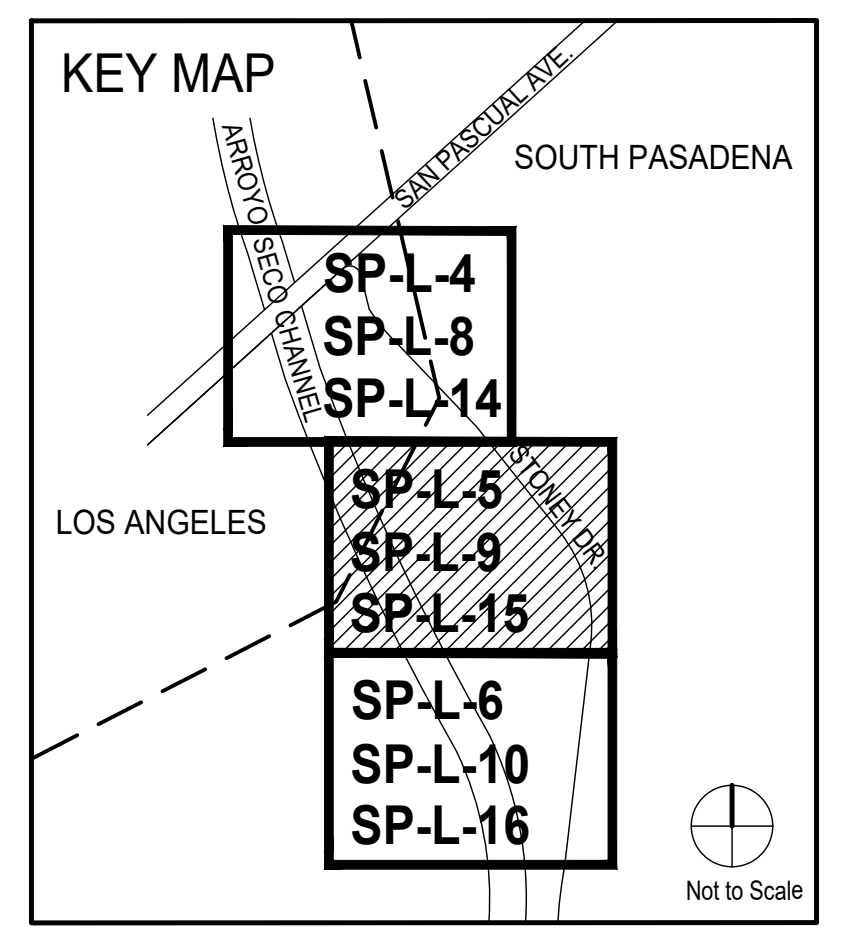
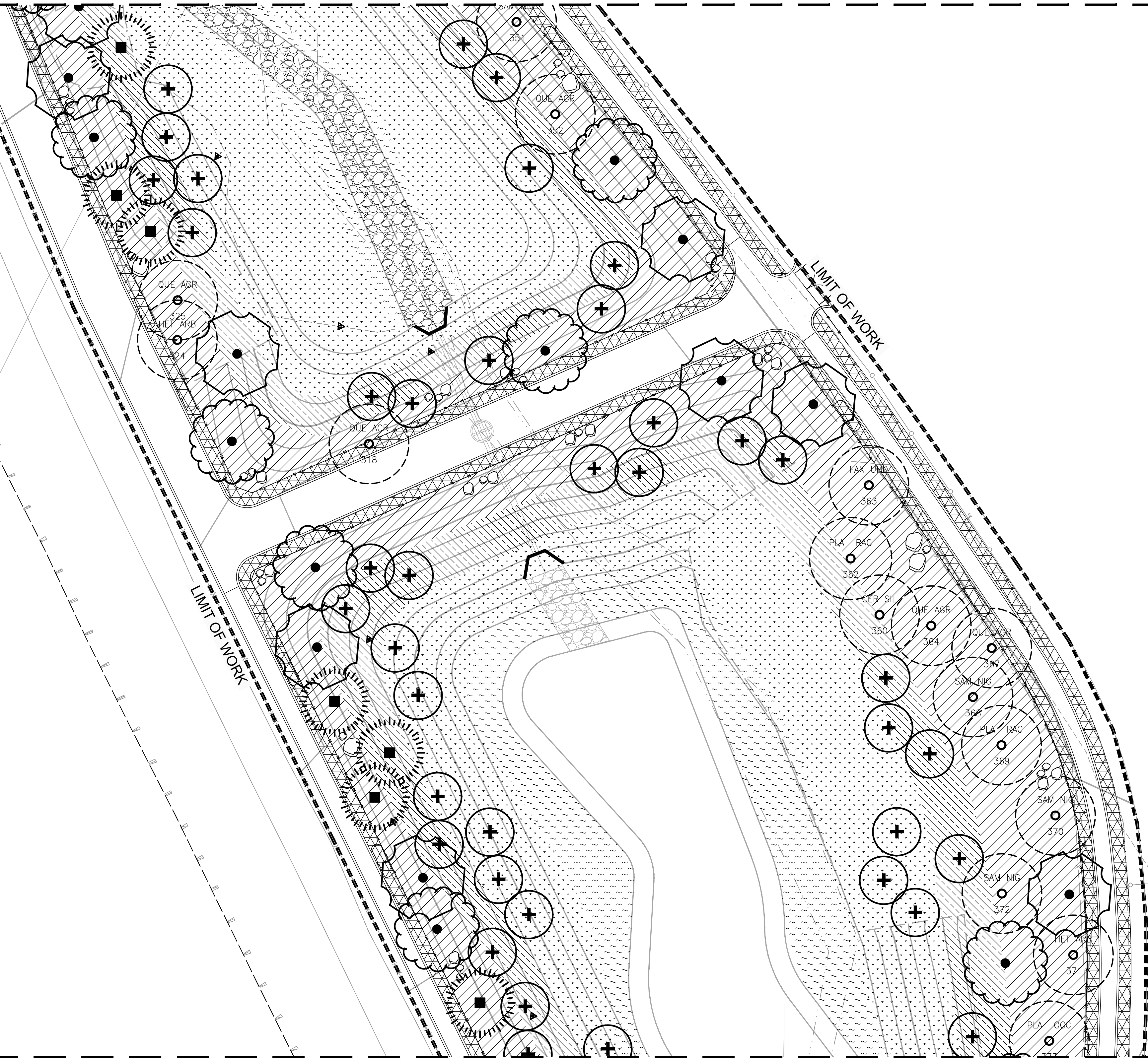
CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET <b>SP-L-14</b>
SHEET TITLE	LANDSCAPE PLANITNG PLAN		<b>29</b> OF <b>49</b>
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
DWG. NO.			

Date: April 22, 2020 Z:\SHARED\LOS ANGELES\PRODUCTION\2024\122001\CAD\122001\_SP\_L12-13\_L12-15.DWG

MATCH LINE - SEE SHEET SP-L-14

LOS ANGELES  
SOUTH PASADENA

MATCH LINE - SEE SHEET SP-L-16



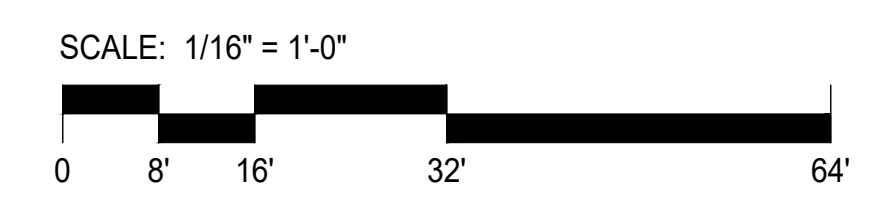
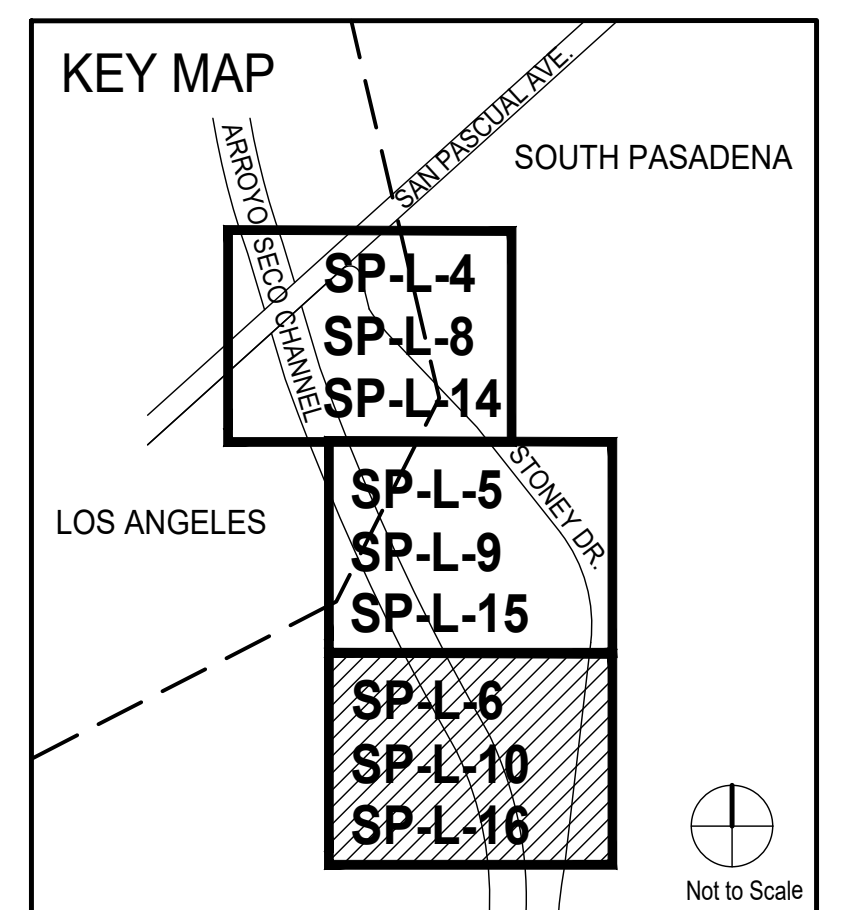
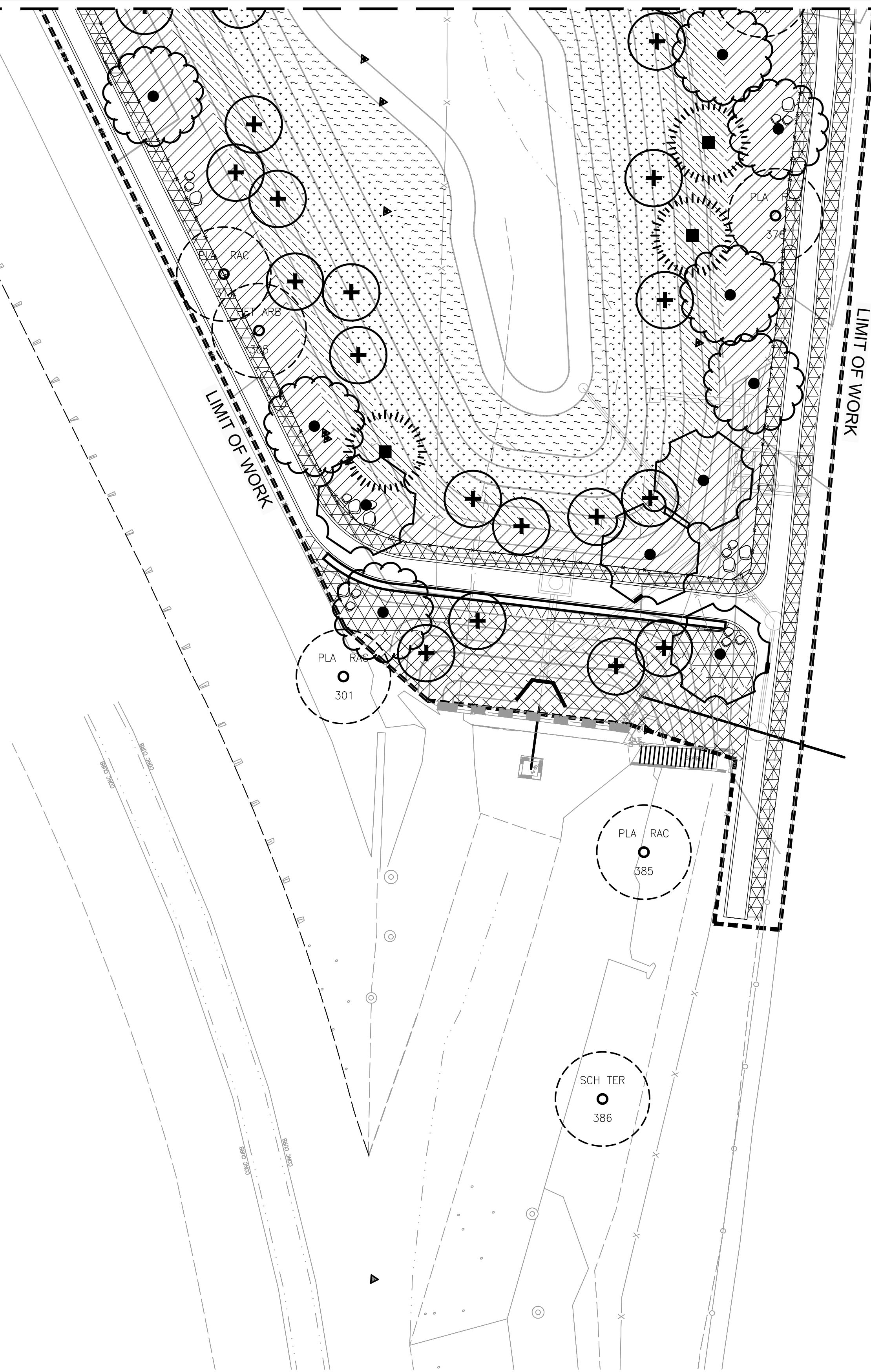
**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY	REVISIONS				
	MARK	DATE	DESCRIPTION	BY	CHKD. APPROVED
AMT					
DESIGNED BY					
AMT					
CHECKED BY					
CAS			AS BUILT		

CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET <b>SP-L-15</b>
SHEET TITLE	LANDSCAPE PLANITNG PLAN		30 OF 49
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
DWG. NO.			

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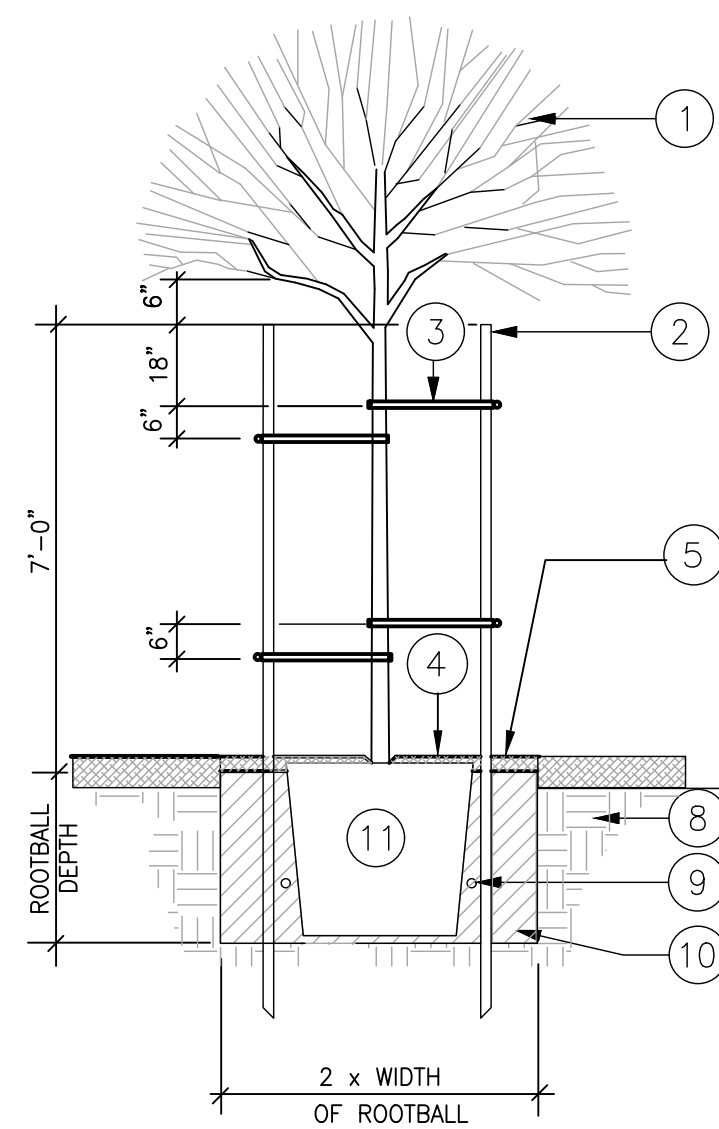
MATCH LINE - SEE SHEET SP-L-15



**PRELIMINARY - NOT FOR CONSTRUCTION**  
 06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS				
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	SP-L-16
						SHEET TITLE	LANDSCAPE PLANITNG PLAN		31	OF 49
						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.
		AS BUILT								

Date: April 22, 2020 Z:\SHARED\LOS ANGELES\PRODUCTION\2023\122001\CAD\122001\_SP\_L12-13\_L12-15.DWG

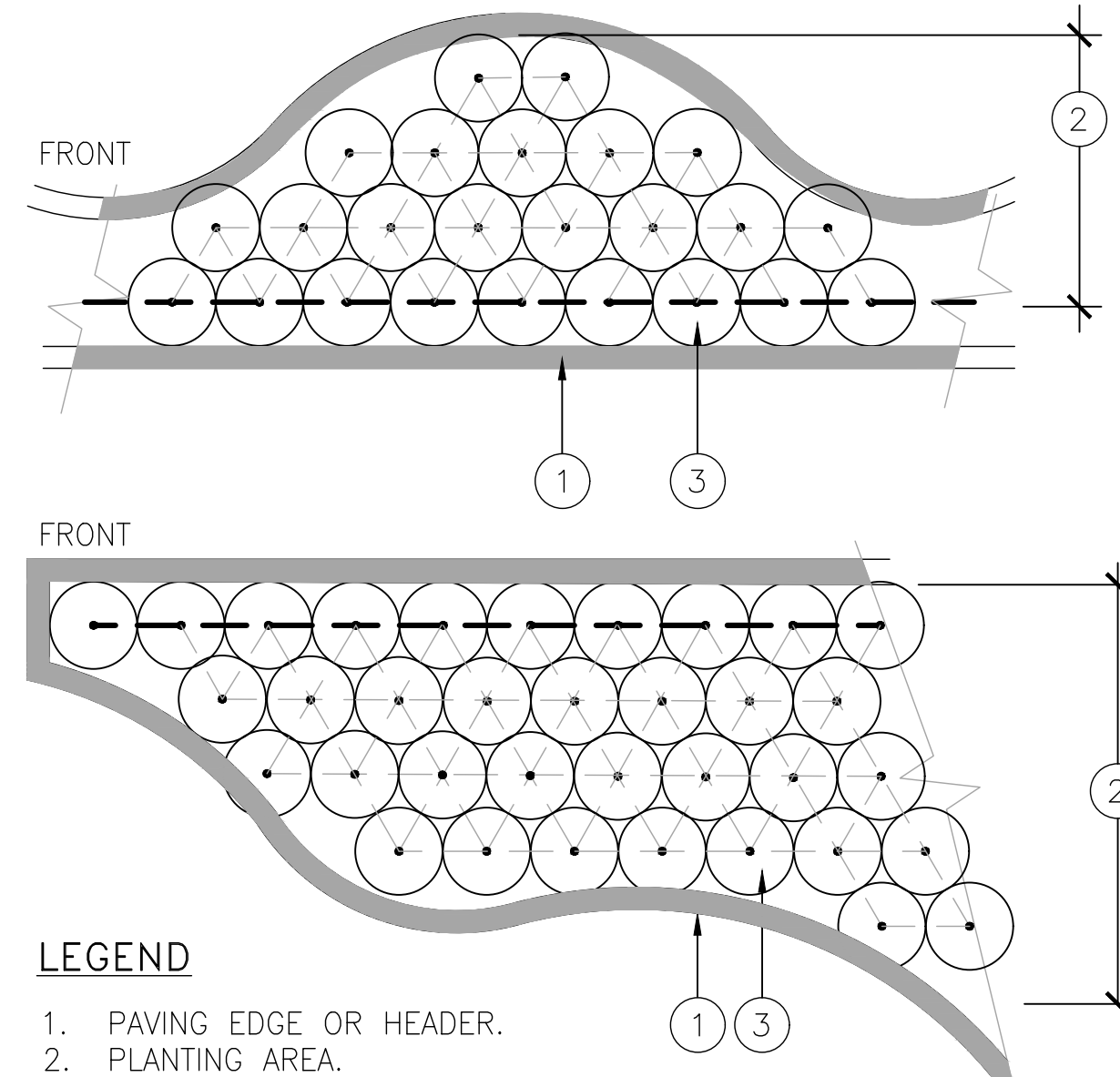


**LEGEND**

1. TREE.
2. TREE STAKE PER SPECIFICATIONS. DO NOT DRIVE STAKE THROUGH ROOTBALL. TOP OF STAKE IS 6" CLEAR OF LOWEST TREE BRANCHES.
3. TREE TIE PER SPECIFICATIONS.
4. 1" LAYER MULCH OVER ROOTBALL.
5. 3" LAYER MULCH OVER REMAINDER OF PLANT PIT.
6. AMENDED BACKFILL. SEE SPECIFICATIONS.
7. ROOTBALL. PLANT SO TOP OF ROOTBALL IS 2" ABOVE FINISH GRADE.
8. SITE SOIL.
9. PLANT FERTILIZER TABLET. SEE SPECIFICATIONS.

**5 DOUBLE STAKE TREE PLANTING**  
SCALE: N.T.S.

xxxxxx.dwg



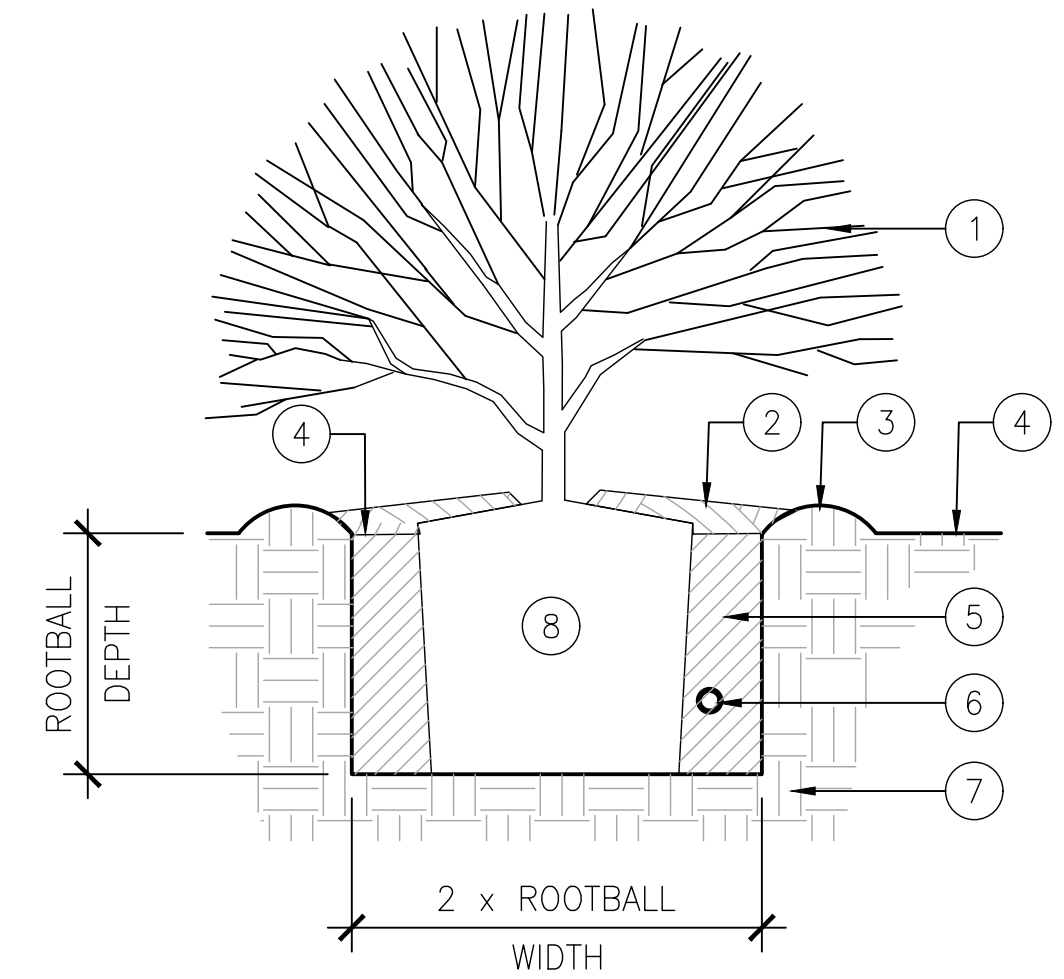
**LEGEND**

1. PAVING EDGE OR HEADER.
2. PLANTING AREA.
3. PLANT.

NOTE: PLANT @ SPACING SHOWN ON PLAN AND SPACING DETAIL.

**3 PLANT LAYOUT @ IRREGULAR AREAS**  
SCALE: N.T.S.

32 90 00 SHRUB - IRREGULAR LAYOUT.dwg

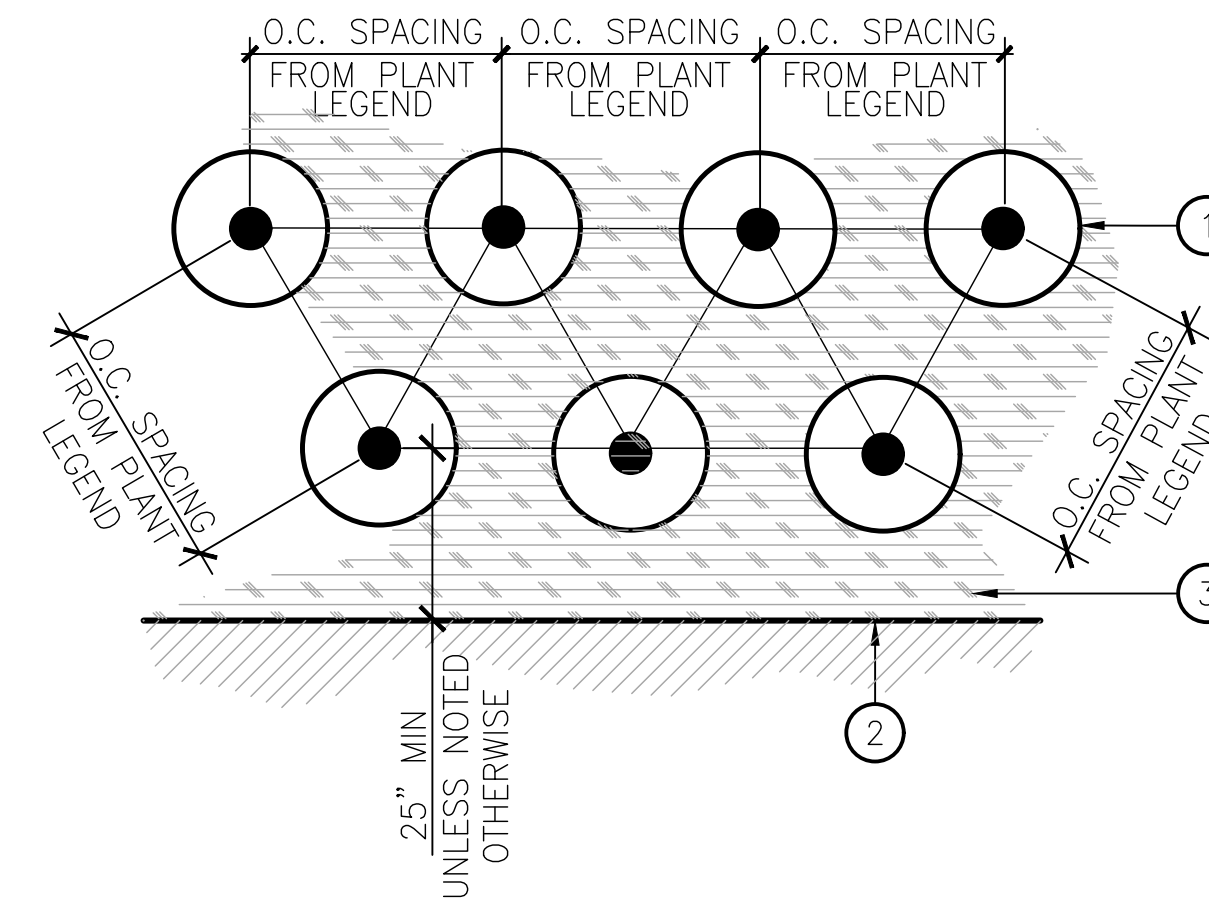


**KEYNOTE LEGEND**

1. SHRUB.
2. MULCH. SEE SPECIFICATIONS.
3. 3" HT WATERING BASIN.
4. FINISH GRADE.
5. AMENDED BACKFILL. SEE SPECIFICATIONS.
6. FERTILIZER TABLET. SEE SPECIFICATIONS.
7. SITE SOIL.
8. ROOTBALL. SET TOP OF ROOTBALL 2" ABOVE FINISH.

**1 SHRUB PLANTING**  
SCALE: N.T.S.

32 90 00 SHRUB PLANTING.dwg

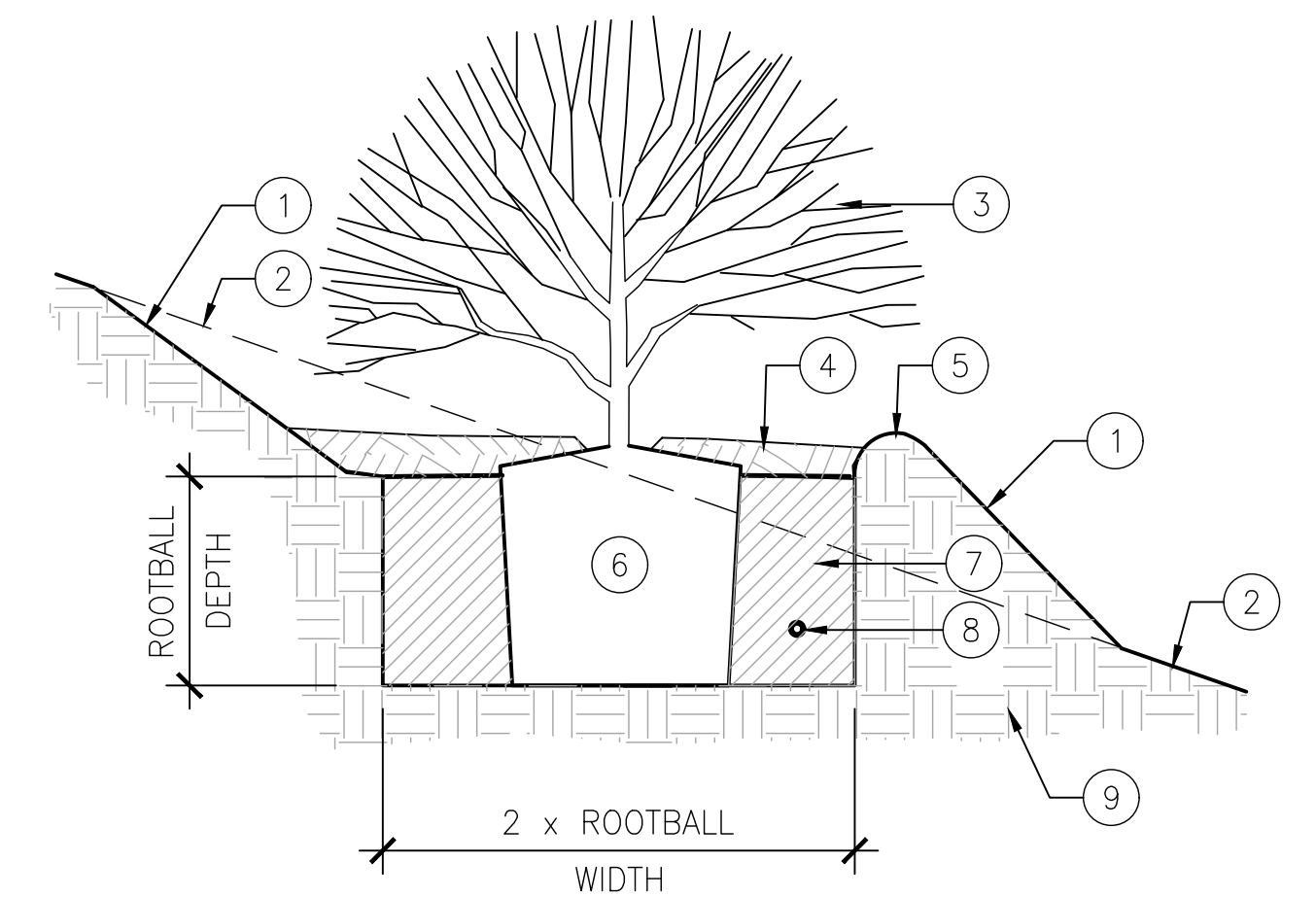


**LEGEND**

1. SHRUB/GROUNDCOVER - TRIANGULATED ROWS.
2. HARDSCAPE ELEMENT: CURB, WALK, ETC.
3. MULCH PER SPECIFICATIONS.

**4 SHRUB/GROUNDCOVER SPACING**  
SCALE: N.T.S.

32 90 00 SHRUB-GC SPACING.dwg



**LEGEND**

1. FINISH GRADE-SLOPE NOT TO EXCEED 1-1/2 : 1
2. EXISTING GRADE. SLOPE VARIES.
3. SHRUB.
4. MULCH. SEE SPECIFICATIONS.
5. 3" HT WATERING BASIN.
6. ROOTBALL. SET TOP OF ROOTBALL 2" ABOVE FINISH GRADE.
7. AMENDED BACKFILL. SEE SPECIFICATIONS.
8. FERTILIZER TABLET. SEE SPECIFICATIONS.
9. SITE SOIL.

**2 SHRUB PLANTING - ON SLOPE**  
SCALE: N.T.S.

32 90 00 SHRUB - ON SLOPE.dwg

**PRELIMINARY - NOT FOR CONSTRUCTION**

06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET		SHEET NO.
AMT						SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	SP-L-17		32 OF 49
DESIGNED BY						SHEET TITLE	LANDSCAPE PLANTING DETAILS		
AMT						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
CHECKED BY									DWG. NO.
CAS		AS BUILT							

Date: April 22, 2020 Z:\SHARED\LOS ANGELES\PRODUCTION\2024\122001\CAD\122001\_SP\_L12-16.DWG



BACKGROUND PLAN AND ONE LINE SYMBOLS	
SYMBOL	DESCRIPTION
	CONTROL SWITCH (SEL. OR P.B.) SEE CIRCUITS FOR SPECIFIC TYPE
	SEE CIRCUITS FOR SPECIFIC TYPE FLOAT SWITCH - FLOW SWITCH
	TEMPERATURE - HUMIDISTAT SWITCH (SUBSCRIPT = NO. OF STAGES)
	LIMIT - PRESSURE - VACUUM SWITCH
	ELECTRICAL OR MECHANICAL ALTERNATOR (SEE WIRING)
	OVERLOAD SWITCH OR DEVICE
	TERMINAL BOX
	SOLENOID VALVE
	PHOTOCELL LINE VOLTAGE
	ITEM NO. INTERCOM EQUIPMENT
	INTERCOMMUNICATION SYSTEM AMPLIFIER - WALL STATION - LINE BALANCE
	INTERCOMMUNICATION DESK SET
	INTERCOM. SPEAKER (SURFACE MTD.)
	INTERCOM. SPEAKER (CEILING LAY-IN)
	TELEPHONE OUTLET OR JUNCTION BOX
	WELDING RECEPTACLE - NEMA L9-50R 600V, 2P, 3W, SIMPLEX
	INTERCOM HANDSET - SURFACE MOUNTED WITH REMOTE SPEAKER AMPLIFIER
	INTERCOM VOLUME CONTROL
	INTERCOM SPEAKER - SURFACE MOUNTED
	INTERCOM HANDSET - FLUSH MOUNTED WITH REMOTE SPEAKER AMPLIFIER
	AS NOTED (LIGHTING PANEL, CONTROL PANEL, DISTRIBUTION PANEL ETC.) WALL MOUNTED
	JUNCTION BOX
	HEATER
	TRANSFORMER
	CONDUIT WITH CONDUIT SEAL FITTING
	CONDUIT EXPOSED
	CONDUIT CONCEALED
	DIRECT BURIED CONDUIT
	DIRECT BURIED CABLE
	OVERHEAD LINE
	UNDERGROUND DUCT BANK
	CONCRETE ENCASED DUCT BANK, WITH CABLE LOCATIONS AND SPARE DUCTS AS INDICATED ON DRAWINGS
	CABLE REEL
	MOTOR OPERATED VALVE

SYMBOL	DESCRIPTION
	LOW VOLTAGE DISCONNECT SWITCH
	LOW VOLTAGE FUSE (BELOW 600V)
	ALL STARTERS SHALL BE FULL VOLTAGE NON-REVERSING UNLESS OTHERWISE INDICATED (FVR) FULL VOLTAGE REVERSING (RV) REDUCED VOLTAGE (2S,2W) TWO SPEED, TWO WINDING
	600V, 3 POLE MOLDED CASE CIRCUIT BREAKER, FRAME & RATING AS SHOWN
	SINGLE PHASE, FRACTIONAL HP MOTOR TO LOCATION INDICATED (SEE GEN. NOTE 4)
	THREE PHASE LOAD WITH IDENTIFICATION
	HIGH VOLTAGE FUSE (ABOVE 600 V)
	TAG NO. (BALLOON) FOR DEVICE INDICATED
	FOR POWER (SEE GEN. NOTE 4) 3/4" C2/C#18 SHLD. CONDUIT AND WIRE RUN FROM DEVICE INDICATED TO LOCATION INDICATED
	CAPACITOR, 3 PHASE, SIZE AS INDICATED
	DISCONNECT SWITCH (F) = FUSED (C) = CIRCUIT BREAKER
	MAGNETIC STARTER (BACKGROUND DRAWINGS ONLY)
	COMBINATION MAGNETIC STARTER FUSED UNLESS NOTED (CIRCUIT BREAKER)
	COMBINATION LIGHTING CONTACTOR WITH HAND-OFF-AUTO SWITCH
	MANUAL STARTER (R) = REVERSING
	CONTROL PANEL
	TEMPERATURE CONTROL PANEL
	UNIT HEATER, 1/8 HORSEPOWER
	600 VOLT FEEDER BUS DUCT (AMPERAGE AS INDICATED)
	LIGHTNING ARRESTOR
	LOW VOLTAGE HOME RUNS 120/208 V 120/240 V (SEE GEN. NOTE 4)
	WATERTIGHT
	WATERTIGHT AND CORROSION PROOF
	EXPLOSION PROOF - CLASS I, DIVISION I, GROUP D
	EXPLOSION PROOF - CLASS II, DIVISION 1
	KEYLOCK
	SMOKE DETECTOR
	EXIT LIGHT
	FLUORESCENT LUMINAIRE
	INCANDESCENT LUMINAIRE
	HIGH INTENSITY DISCHARGE LIGHT
	EMERGENCY BATTERY PACK

CONTROL CIRCUIT & PILOT DEVICE LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	PRESS. ACTUATED SWITCH		SELECTOR SWITCH OPERATOR WITH FUNCTION SHOWN
	FLOAT ACTUATED SWITCH		MOMENTARY PUSHBUTTON OPERATOR-NORMALLY OPEN
	FLOW ACTUATED SWITCH		MOMENTARY PUSHBUTTON OPERATOR-NORMALLY CLOSED
	TEMP. ACTUATED SWITCH		PUSHBUTTON OPERATOR WITH MUSHROOM HEAD
	LIMIT SWITCH- NORMALLY OPEN		FIELD LOCATED STOP BUTTON
	LIMIT SWITCH- NORMALLY CLOSED		MAINTAINED PUSH-PULL OPERATOR
	LIMIT SWITCH-NORMALLY CLOSED-HELD OPEN		MAINTAINED STOP-START PUSHBUTTON OPERATOR
	LIMIT SWITCH-NORMALLY OPEN-HELD CLOSED		SOLENOID OR CLUTCH
	LATCHING CABLE SWITCH		PUSH-TO-TEST INDICATING LIGHT
	TIME-DELAY FUSE		MAINTAINED STOP- MOMENTARY START PUSHBUTTON (JOG)
	CONTROL RELAY COIL		ZERO SPEED OR ANTI- PLUGGING SWITCH
	CONTROL RELAY CONTACT-NORMALLY OPEN		LOCAL TERMINALS WITH EXTERNAL WIRING
	CONTROL RELAY CONTACT-NORMALLY CLOSED		ELAPSED TIME INDICATOR
	TWO COIL LATCHING RELAY		TIMING RELAY INSTANTANEOUS CONTACTS
	TIMING RELAY COIL		
	TIMED CLOSED CONTACT ON ENERGIZATION		
	TIMED OPEN CONTACT ON ENERGIZATION		
	TIMED OPEN CONTACT ON DE-ENERGIZATION		
	TIMED CLOSED CONTACT ON DE-ENERGIZATION		
	120 VAC TRANSFORMER		

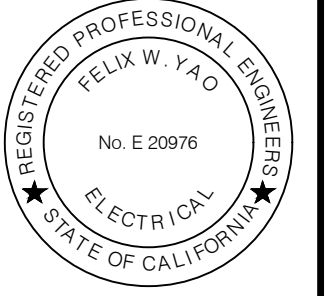
WIRING DEVICE SCHEDULE			
SYMBOL	DESCRIPTION	NEMA TYPE	
	125V, 2P, SIMPLEX, CLOCK HANGER	1-15 R	
	125V, 2P, SIMPLEX, 3W	5-20 R	
	125V, 2P, DUPLEX, 3W	5-20 R	
	125/250V, 3P, SIMPLEX, 3W, RANGE TYPE	10-50 R	
	20A, 120/277 V SWITCH	SPST	
	20A, 120/277 V SWITCH	2PDT	
	20A, 120/277 V SWITCH	3 WAY	
	20A, 120/277 V SWITCH	4 WAY	
	20A, 120/277 V DIMMER SWITCH		
	250V, 2P, SIMPLEX, 3W, 50A	6-50R	
	125V, 2P, MULTI-RECEPTACLE	5-15R	
	250V, 2P, SIMPLEX, 3W, 20A	6-20R	
	600V, 2P, 3W, SIMPLEX WELDING	L9-50R	
	208V, 3P, SIMPLEX, 4W, LOCKING	L14-20R	
	277V, 2P, DUPLEX, 3W	7-15R	

- GENERAL NOTES:
- ELECTRICAL MATERIALS AND EQUIPMENT ITEMS SHOWN IN LIGHT LINE WEIGHTS ON THE DRAWINGS ARE EXISTING ITEMS TO REMAIN. ELECTRICAL MATERIALS AND EQUIPMENT ITEMS SHOWN IN HEAVY LINE WEIGHTS ARE NEW THIS CONTRACT.
  - ITEMS SHOWN CROSSHATCHED ON THE DRAWINGS ARE EXISTING ITEMS TO BE REMOVED.
  - FOR ITEMS INDICATED AS "FIELD LOCATE" CHECK DRAWINGS OF OTHER TRADES (IN PARTICULAR PIPING AND STRUCTURAL) FOR INTERFERENCE AND FOR LOCATIONS OF MOUNTING FLANGES, CONNECTION POINTS, ETC.
  - INSTALL A SINGLE CONDUCTOR INSULATED (RHW, THHN, OR XHHW) COPPER GROUND WIRE IN EACH CONDUIT, SIZE AS SHOWN ON DRAWINGS OR AS A MINIMUM PER THE NATIONAL ELECTRICAL CODE. THIS GROUND WIRE SHALL BE CONNECTED AT EACH END TO THE EQUIPMENT GROUND. CONDUIT SHALL BE 3/4" MIN.
  - THE FOLLOWING COMPONENT IDENTIFICATION SHALL BE USED AS APPROPRIATE:  
(F) FIELD MOUNTED, NOT AT STARTER OR OTHER CONTROL PANELS.  
(S) STARTER PANEL MOUNTED.  
(MCP) AT MAIN CONTROL PANEL.  
(1) AT CONTROL PANEL NO. 1  
(2) AT CONTROL PANEL NO. 2  
(TCP) AT TEMPERATURE CONTROL PANEL.

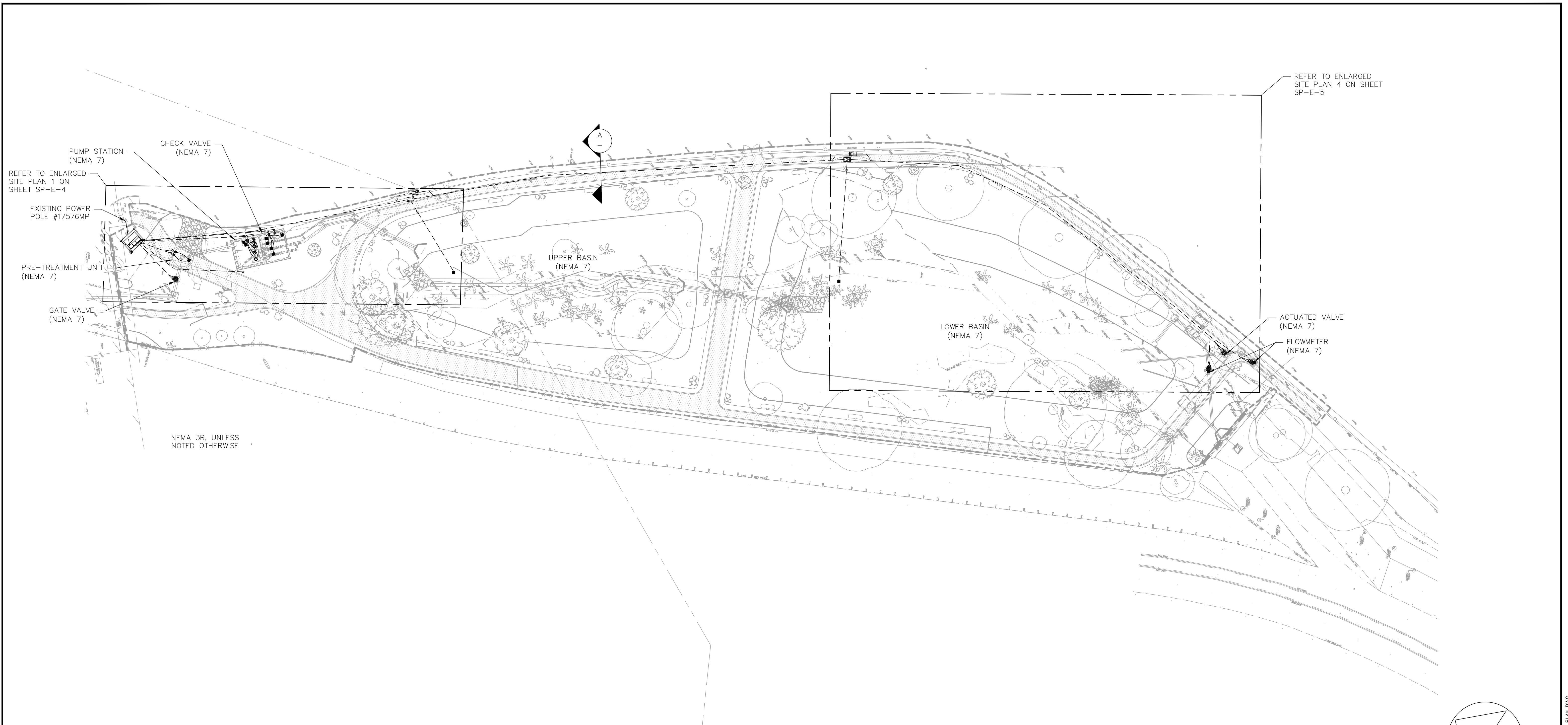
PRELIMINARY - NOT FOR CONSTRUCTION  
06/03/2024

DRAWN BY	REVISIONS			
	MARK	DATE	DESCRIPTION	BY
JJI				
DESIGNED BY				
FWY				
CHECKED BY				
FWY				
		AS BUILT		

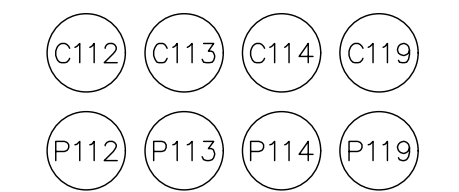
CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	LEGEND	SHEET SP-E-1	
SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	ACCOUNT NUMBER XXXXXX	81 OF 97	
SCALE AS SHOWN		DWG. NO.	



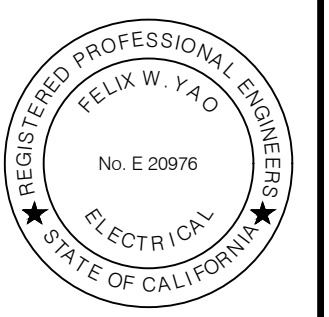
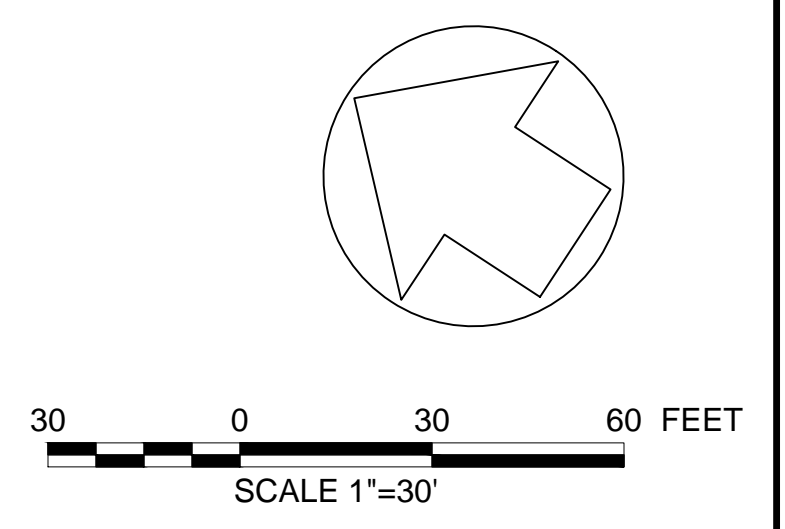
Date: October 13, 2023 C:\WORK\FELIX\RAFTWATER\SAN PASCUAL\SHEETS\SP-E-1 LEGEND.DWG



SITE PLAN  
1" = 30'



DUCTBANK SECTION A  
NO SCALE



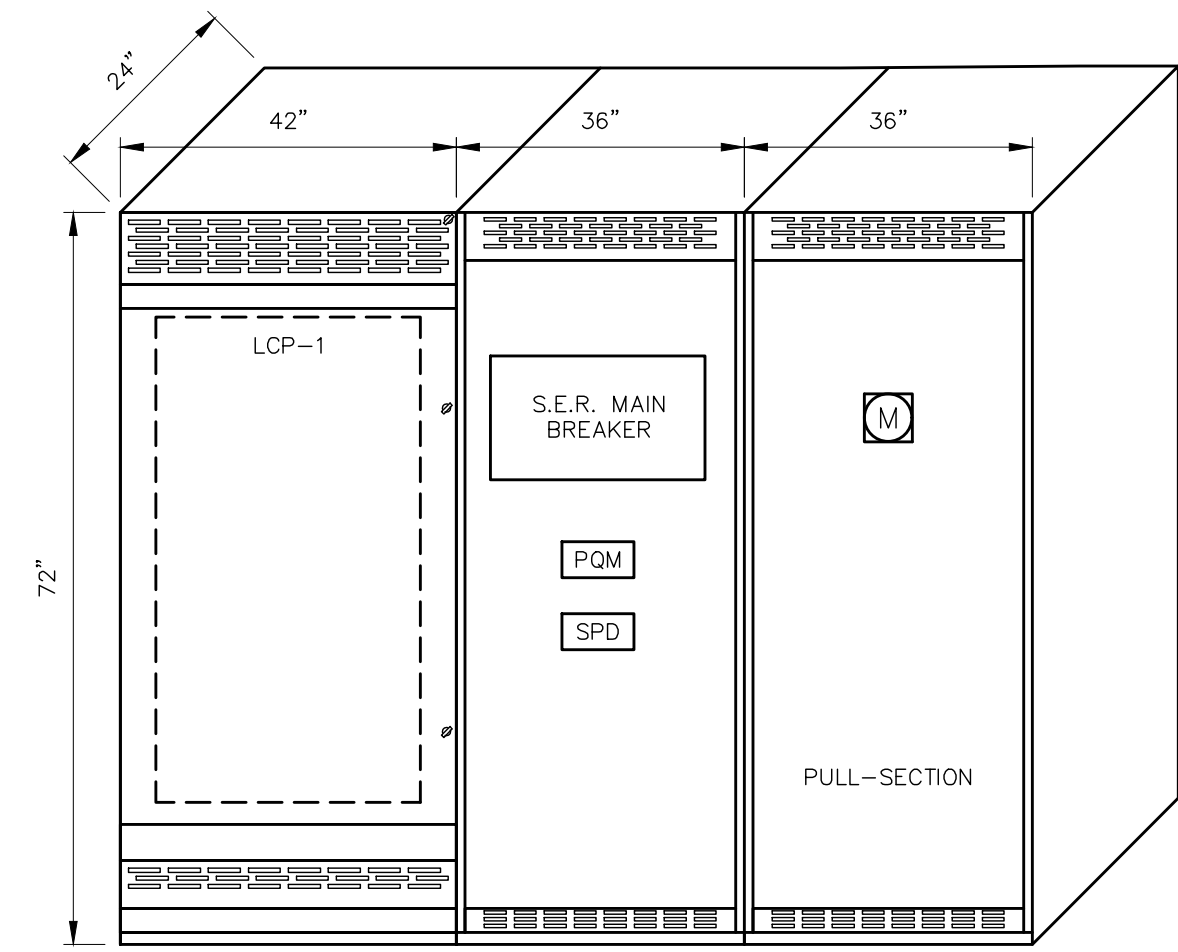
**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET TITLE	SHEET NO.	DWG. NO.
JJI						SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	SITE PLAN	82 OF 97	
FWY						AS SHOWN	ACCOUNT NUMBER XXXXXX		
FWY		AS BUILT							

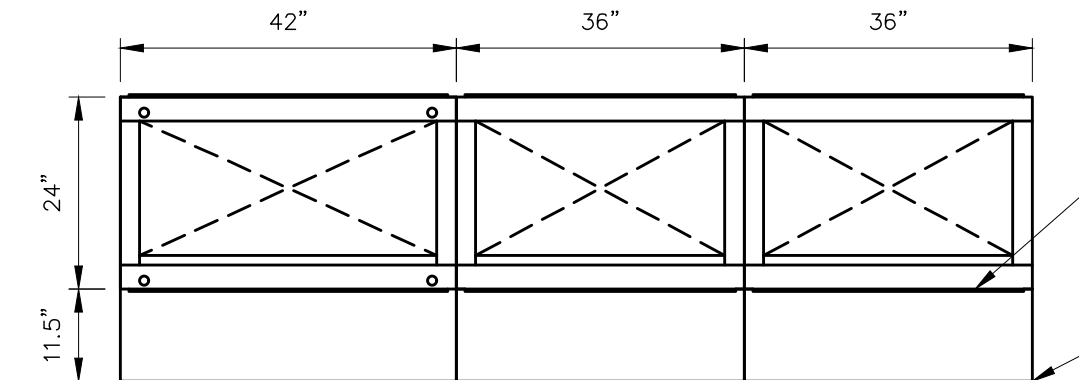
Date: October 13, 2023 C:\WORK\FELIX\RAFTWATER\SAN PASCUAL\SHEETS\SP-E-2 SITE PLAN.DWG

ELECTRICAL LOAD SUMMARY			
LOAD	HP	kVA	AMPS
GATE VALVE	5		7.6
PUMP 1	35		52.0
PUMP 2			52.0
PUMP 3	5		7.6
PUMP 4	5		7.6
ACTUATED VALVE	5		7.6
LCP-1 (120V LOADS)		3	6.3
<b>SUB-TOTAL</b>			<b>140.7</b>
25% OF LARGEST MOTOR			13.0
<b>TOTAL @ 480V, 3-PH</b>			<b>153.7</b>
REQUESTED SERVICE SIZE (AMPS)			200.0

CONDUIT AND WIRE SCHEDULE											
TAG	SETS	CONDUIT		COPPER WIRES					FROM	TO	NOTES
		SIZE (INCH)	TYPE	QTY	PHASE	GROUND	TYPE	Vdrop			
U001	2	5	PVC SCH.40						SCE POLE	SCE METER	HOT DIPPED GALVANIZED ELBOWS AND RISERS WITH PULL-ROP
P001	1	-	-	4	#4/0	#2	XHHW	0.05	SCE METER	S.E.R. MAIN BREAKER	
P002	1	-	-	4	#4/0	#2	XHHW	0.05	S.E.R. MAIN BREAKER	LCP-1	
P101	1	1	PVC SCH.40	3	#12	#12	XHHW	0.78	LCP-1	GATE VALVE	
P102	1	1	PVC SCH.40	2	#12	#12	XHHW	0.27	LCP-1	HYDROCARBON METER (AE/AIT-1)	
P103	1	2	PVC SCH.40	3	#1	#6	XHHW	0.33	LCP-1	PUMP NO.1	
P104	1	2	PVC SCH.40	3	#1	#6	XHHW	0.33	LCP-1	PUMP NO.2	
P105	1	1	PVC SCH.40	3	#12	#12	XHHW	0.54	LCP-1	PUMP NO.3	
P106	1	1	PVC SCH.40	3	#12	#12	XHHW	0.54	LCP-1	PUMP NO.4	
P107											NOT USED
P108											NOT USED
P109											NOT USED
P110											NOT USED
P111											NOT USED
P112											NOT USED
P113	1	1	PVC SCH.40	2	#12	#12	XHHW	0.33	LCP-1	FLOW METER (FE/FIT-1)	
P114											NOT USED
P115											NOT USED
P116	1	1	PVC SCH.40	2	#12	#12	XHHW	2.38	LCP-1	FLOW METER (FE/FIT-2)	
P117	1	1	PVC SCH.40	2	#12	#12	XHHW	2.38	LCP-1	FLOW METER (FE/FIT-3)	
P118	1	1	PVC SCH.40	2	#12	#12	XHHW	0.60	LCP-1	IRRIGATION CONTROLLER	
P119	1	1	PVC SCH.40	3	#10	#10	XHHW	2.81	LCP-1	ACTUATED VALVE	
C101	1	1	PVC SCH.40	10	#14	#14	THWN	-	LCP-1	GATE VALVE	
C102	1	1	PVC SCH.40	1	2/C#16SH	#14	THWN	-	LCP-1	HYDROCARBON METER (AE/AIT-1)	
C103	1	1	PVC SCH.40	4	#14	#14	THWN	-	LCP-1	PUMP NO.1 (TSH AND MSH)	
C104	1	1	PVC SCH.40	4	#14	#14	THWN	-	LCP-1	PUMP NO.2 (TSH AND MSH)	
C105	1	1	PVC SCH.40	4	#14	#14	THWN	-	LCP-1	PUMP NO.3 (TSH AND MSH)	
C106	1	1	PVC SCH.40	4	#14	#14	THWN	-	LCP-1	PUMP NO.4 (TSH AND MSH)	
C107	1	1	PVC SCH.40	1	2/C#16SH	#14	THWN	-	LCP-1	LEVEL TRANSMITTER (PE/PIT-1)	
C108	1	1	PVC SCH.40	6	#14	#14	THWN	-	LCP-1	FLOATS (LSHH-1, LSH-1, LSL-1)	
C109	1	1	PVC SCH.40	2	#14	#14	THWN	-	LCP-1	CHECK VALVE	
C110	1	1	PVC SCH.40	2	#14	#14	THWN	-	LCP-1	CHECK VALVE	
C111	1	1	PVC SCH.40	2	#14	#14	THWN	-	LCP-1	CHECK VALVE	
C112	1	1	PVC SCH.40	2	#14	#14	THWN	-	LCP-1	CHECK VALVE	
C113	1	1	PVC SCH.40	1	2/C#16SH	#14	THWN	-	LCP-1	FLOW METER (FE/FIT-1)	
C114	1	1	PVC SCH.40	1	2/C#16SH	#14	THWN	-	LCP-1	LEVEL TRANSMITTER (PE/PIT-2)	
C115	1	1	PVC SCH.40	1	2/C#16SH	#14	THWN	-	LCP-1	LEVEL TRANSMITTER (PE/PIT-3)	
C116	1	1	PVC SCH.40	1	2/C#16SH	#14	THWN	-	LCP-1	FLOW METER (FE/FIT-2)	
C117	1	1	PVC SCH.40	1	2/C#16SH	#14	THWN	-	LCP-1	FLOW METER (FE/FIT-3)	
C118											NOT USED
C119	1	1	PVC SCH.40	10	#14	#14	THWN	-	LCP-1	ACTUATED VALVE	

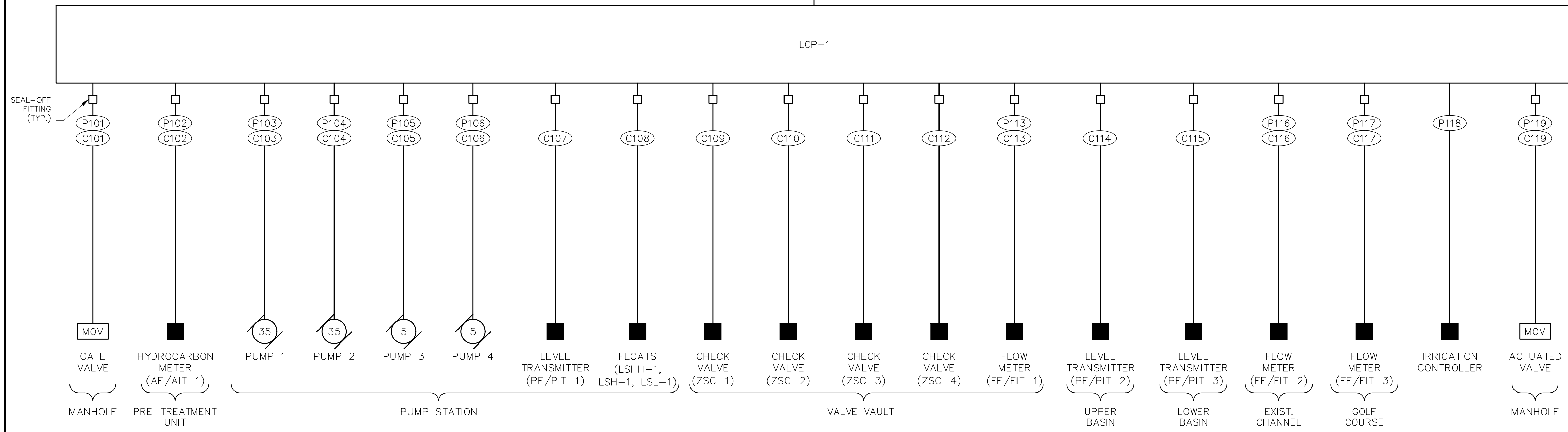
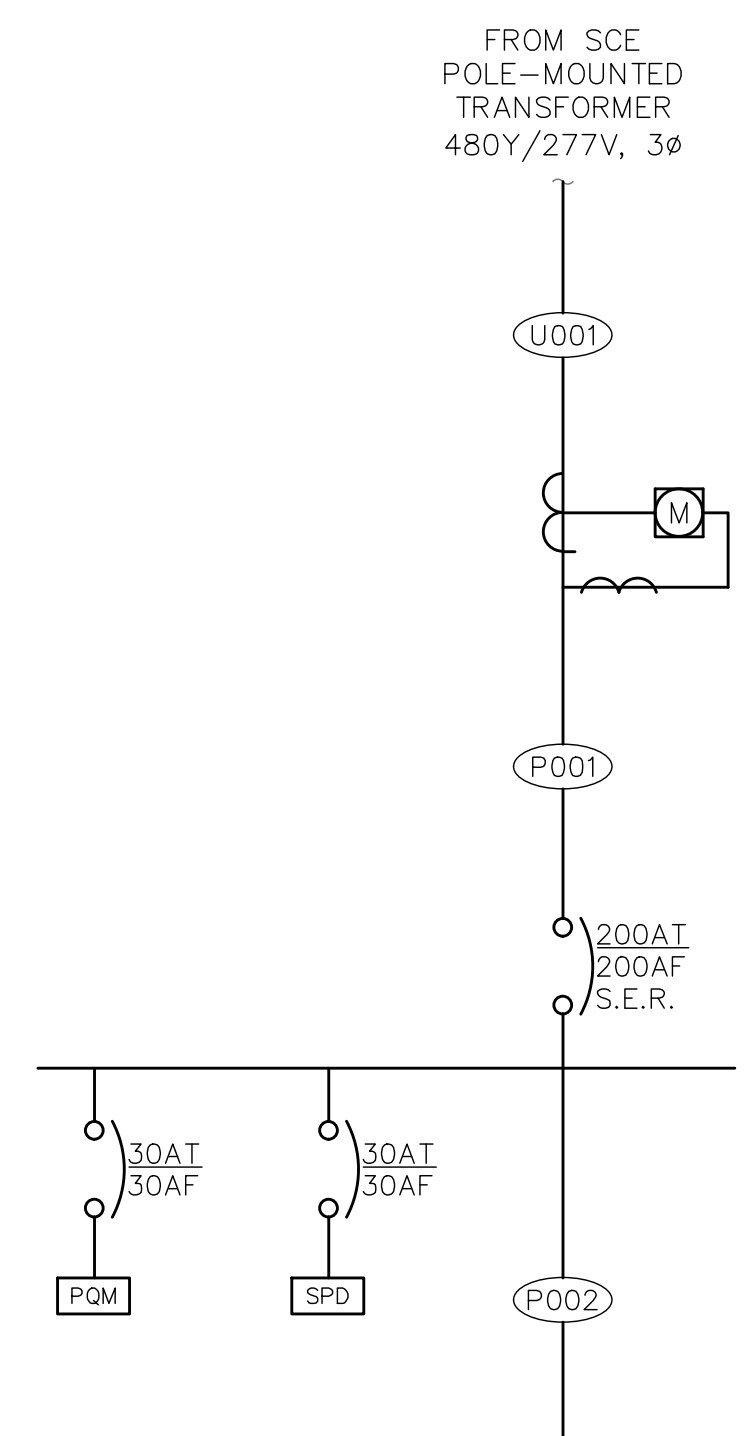


SWITCHBOARD FRONT VIEW  
NOTE: NEMA 4X-SS ENCLOSURE NOT SHOWN FOR CLARITY  
NO SCALE



SWITCHBOARD PLAN VIEW  
NO SCALE

SWITCHBOARD DOORS SHALL BE CAPABLE OF OPENING A MINIMUM OF 90-DEGREES  
ENCLOSURE DOORS SHALL OPEN SUCH THAT ENTIRE WIDTH OF SWITCHBOARD SECTION IS ACCESSIBLE AND UNHINDERED

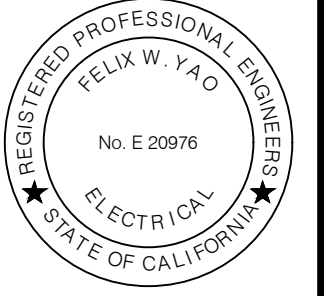


SINGLE-LINE AND RISER DIAGRAM  
NO SCALE

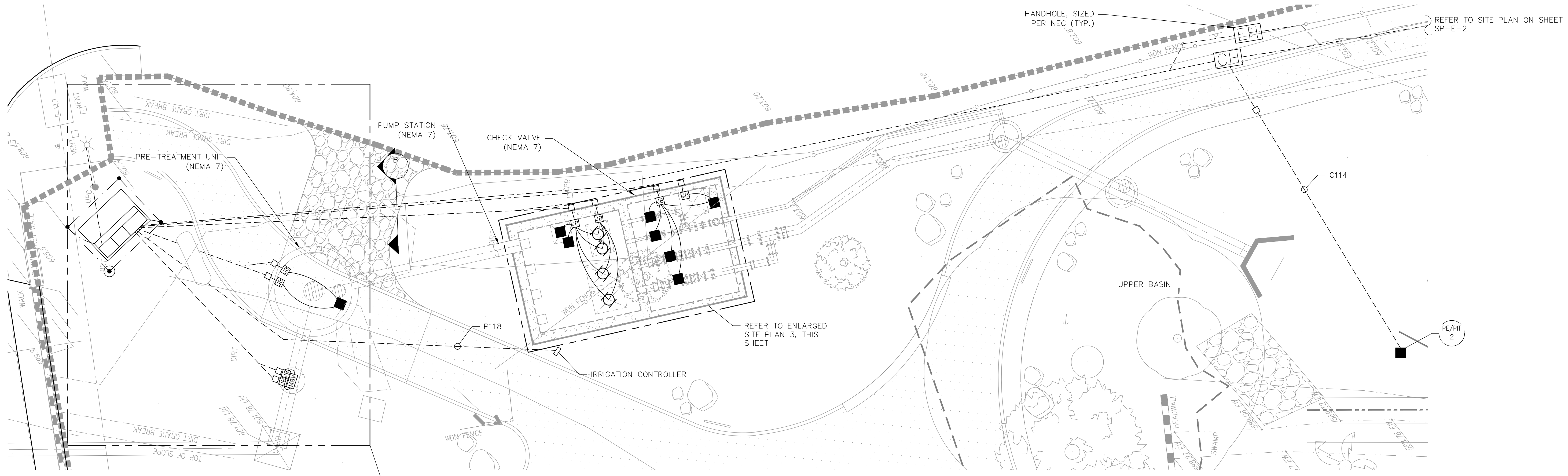
**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

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	MARK	DATE	DESCRIPTION	BY
JJI				
DESIGNED BY				
FWY				
CHECKED BY				
FWY				
		AS BUILT		

CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET <b>SP-E-3</b>
SHEET TITLE	SINGLE-LINE DIAGRAM		<b>83</b> OF <b>97</b>
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
DWG. NO.			



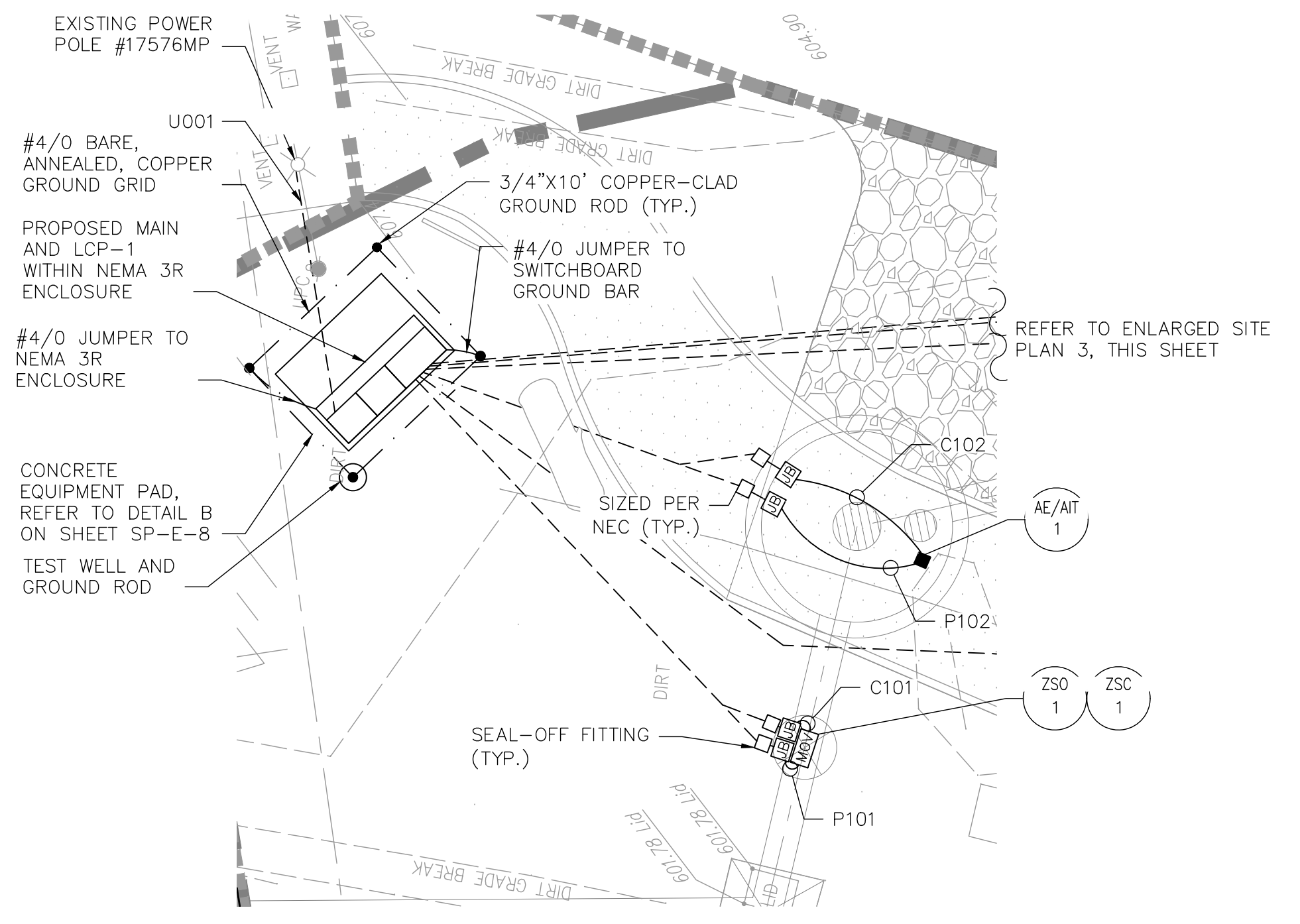
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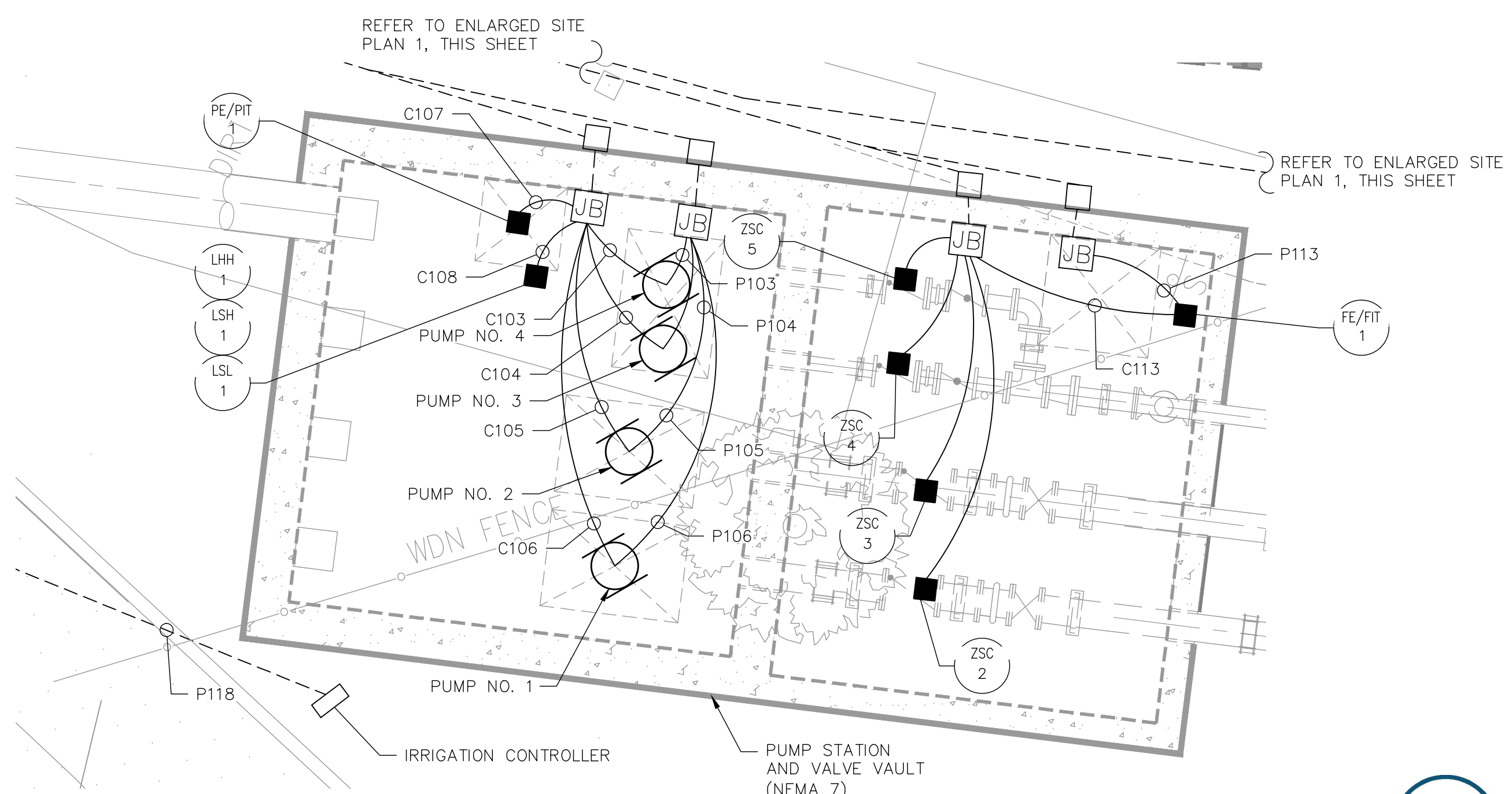
ENLARGED SITE PLAN 1  
1/8" = 1'-0"

- (C112) (C113) (C114) (C116) (C117) (C119)
- (C112) (P113) (C115) (P116) (P117) (P119)
- (C103) (C104) (C105) (C106) (C107) (C109)
- (P103) (P104) (P105) (P106) (P108) (P110)

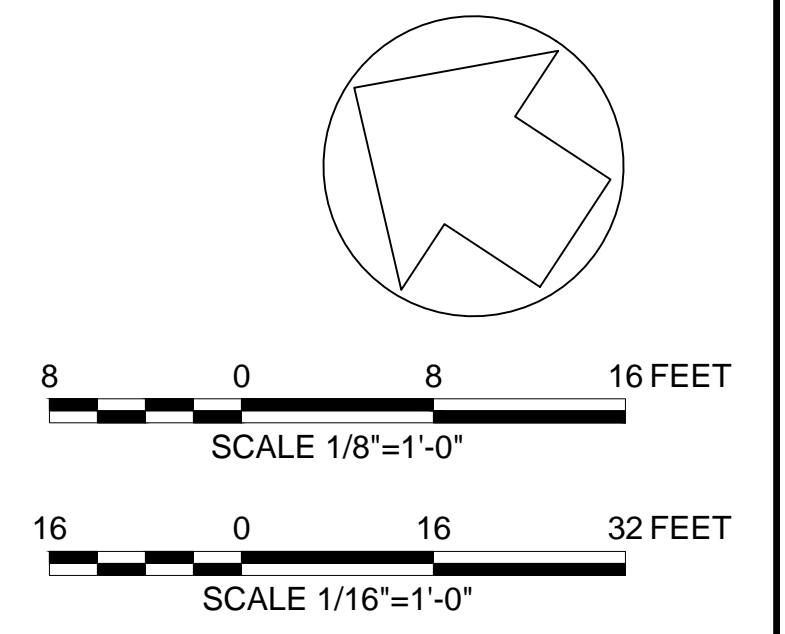
DUCTBANK SECTION B  
NO SCALE



ENLARGED SITE PLAN 2  
1/8" = 1'-0"



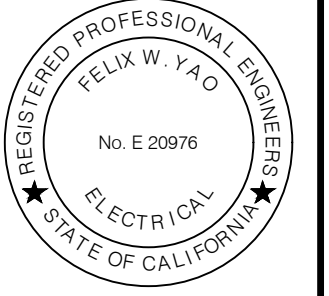
ENLARGED SITE PLAN 3  
3" = 1'-0"



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06/03/2024

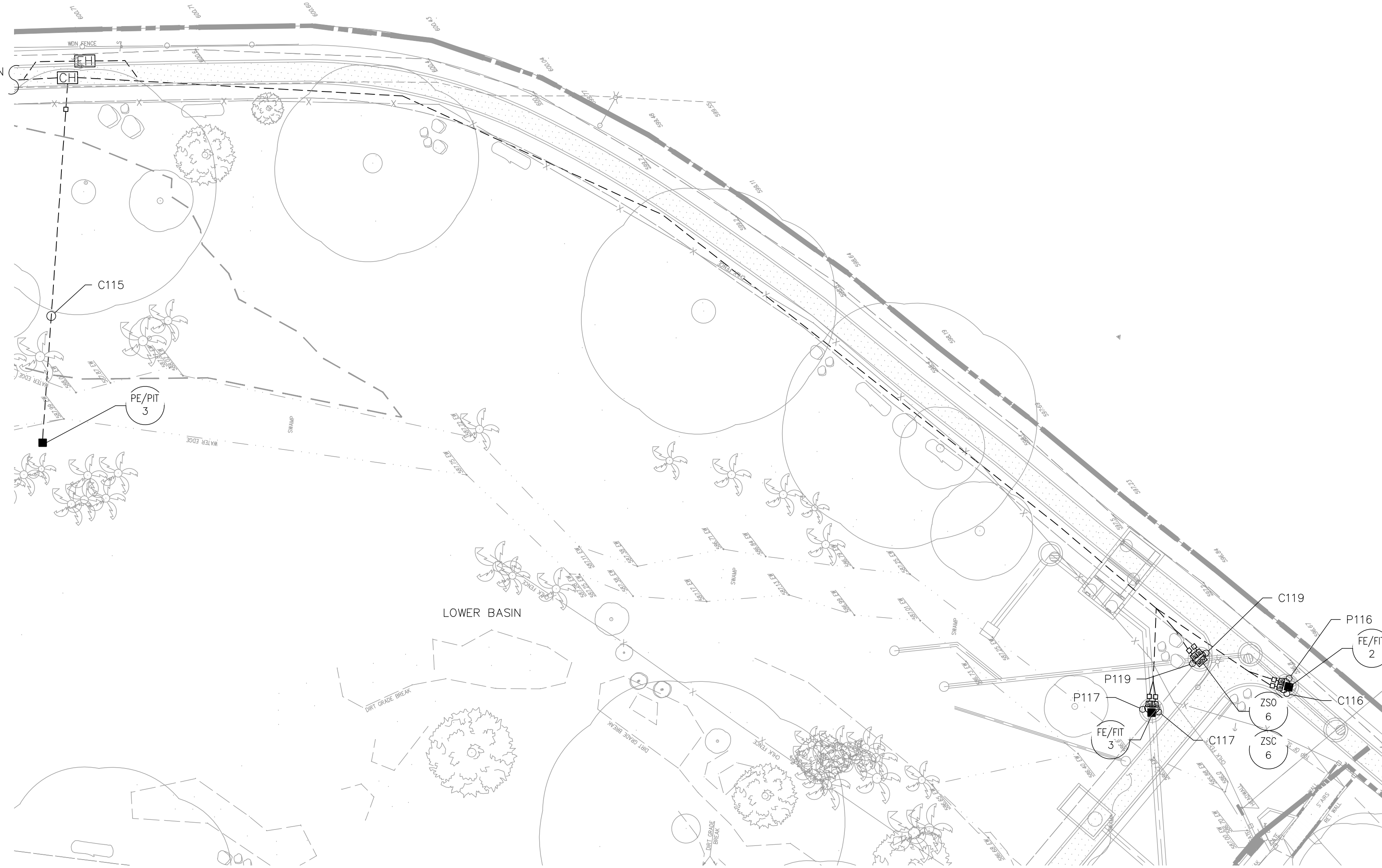
DRAWN BY	REVISIONS			
	MARK	DATE	DESCRIPTION	BY
JJI				
DESIGNED BY				
FWY				
CHECKED BY				
FWY		AS BUILT		

CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET <b>SP-E-4</b>
SHEET TITLE	ENLARGED PLAN		<b>84</b> OF <b>97</b>
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
DWG. NO.			

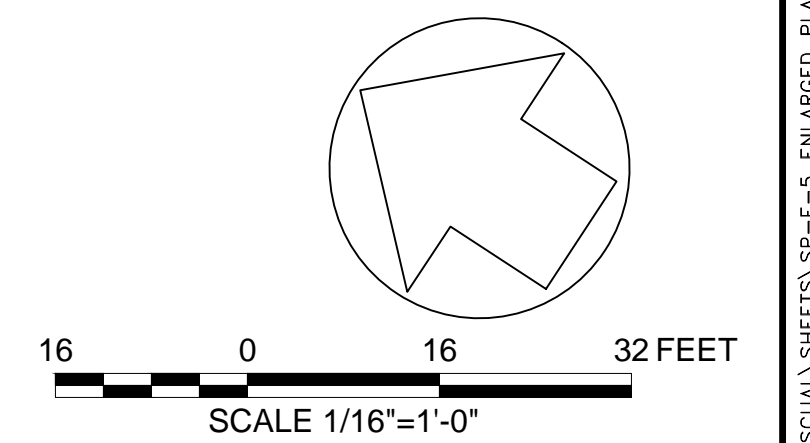


Date: October 13, 2023 C:\WORK\FELIX\RAFTWATER\SAN PASCUAL\SHEETS\SP-E-4 ENLARGED PLANDWG

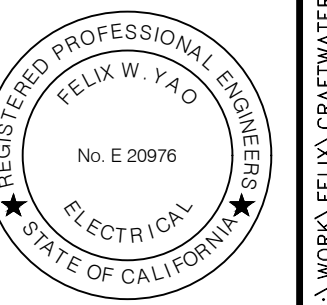
REFER TO SITE PLAN ON SHEET SP-E-2



ENLARGED SITE PLAN 4  
1/16" = 1'-0"

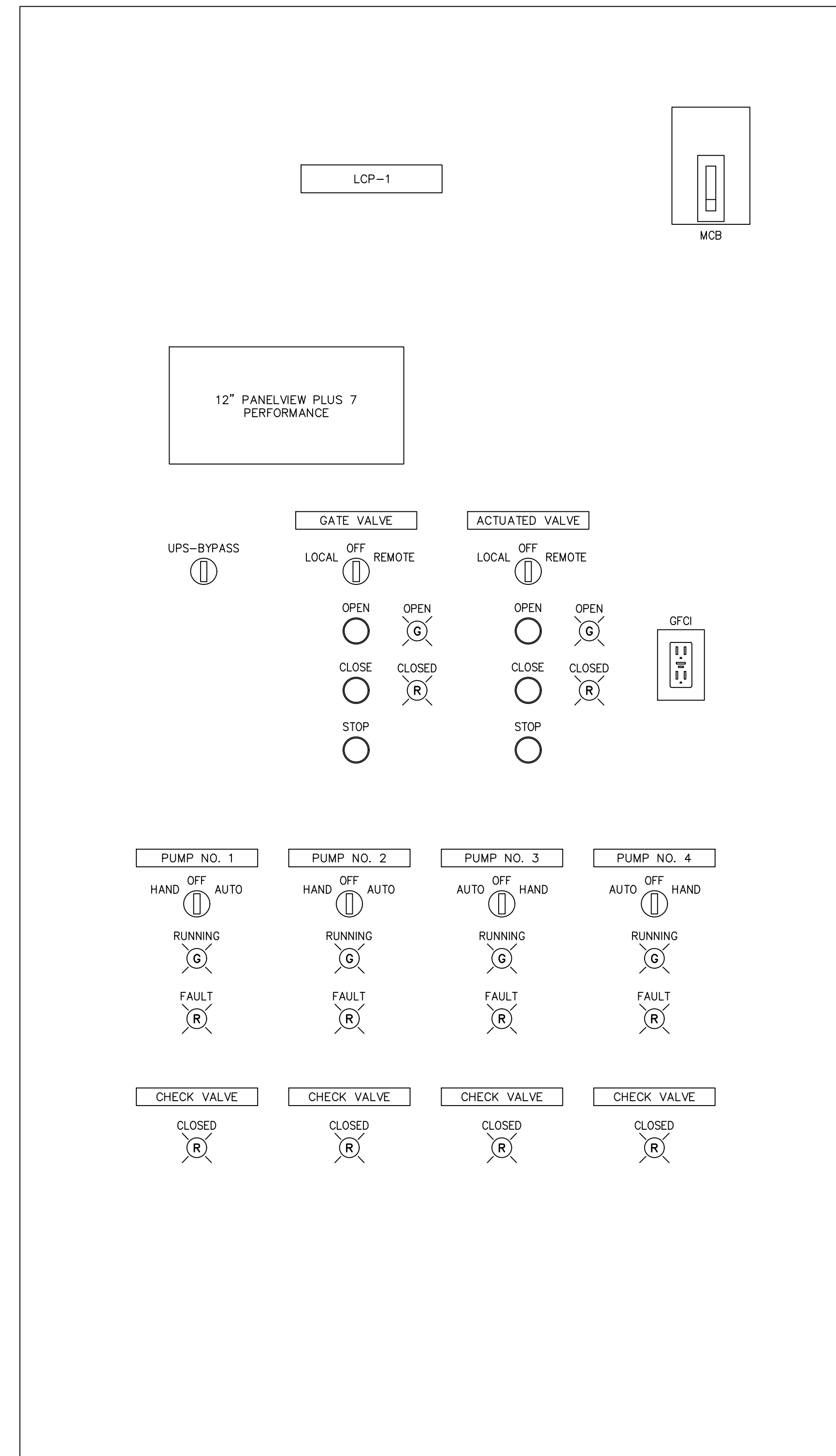


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06/03/2024

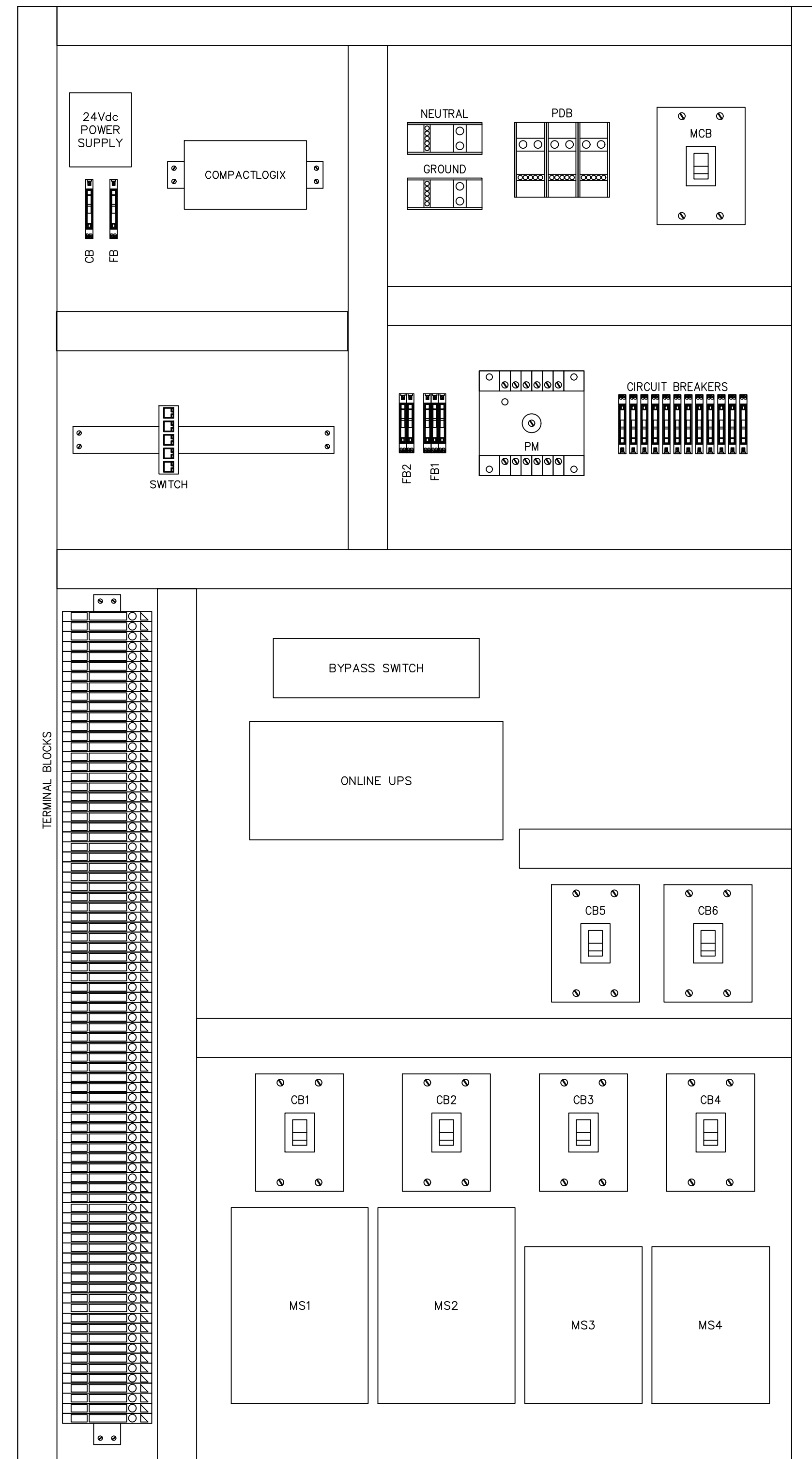


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MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET		NO.
JJI						SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	85		97
DESIGNED BY						SHEET TITLE	ENLARGED PLAN		DWG. NO.
FWY						SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
CHECKED BY									
FWY		AS BUILT							

Date: October 13, 2023 C:\WORK\FELIX\RAFTWATER\SAN PASCUAL\SHEETS\SP-E-5 ENLARGED PLAN.DWG



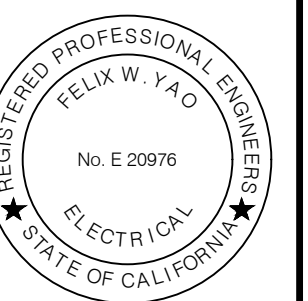
**LOCAL CONTROL PANEL (LCP-1) DEADFRONT LAYOUT**  
NO SCALE



**PROPOSED SUBPLATE LAYOUT**  
SCALE: NTS

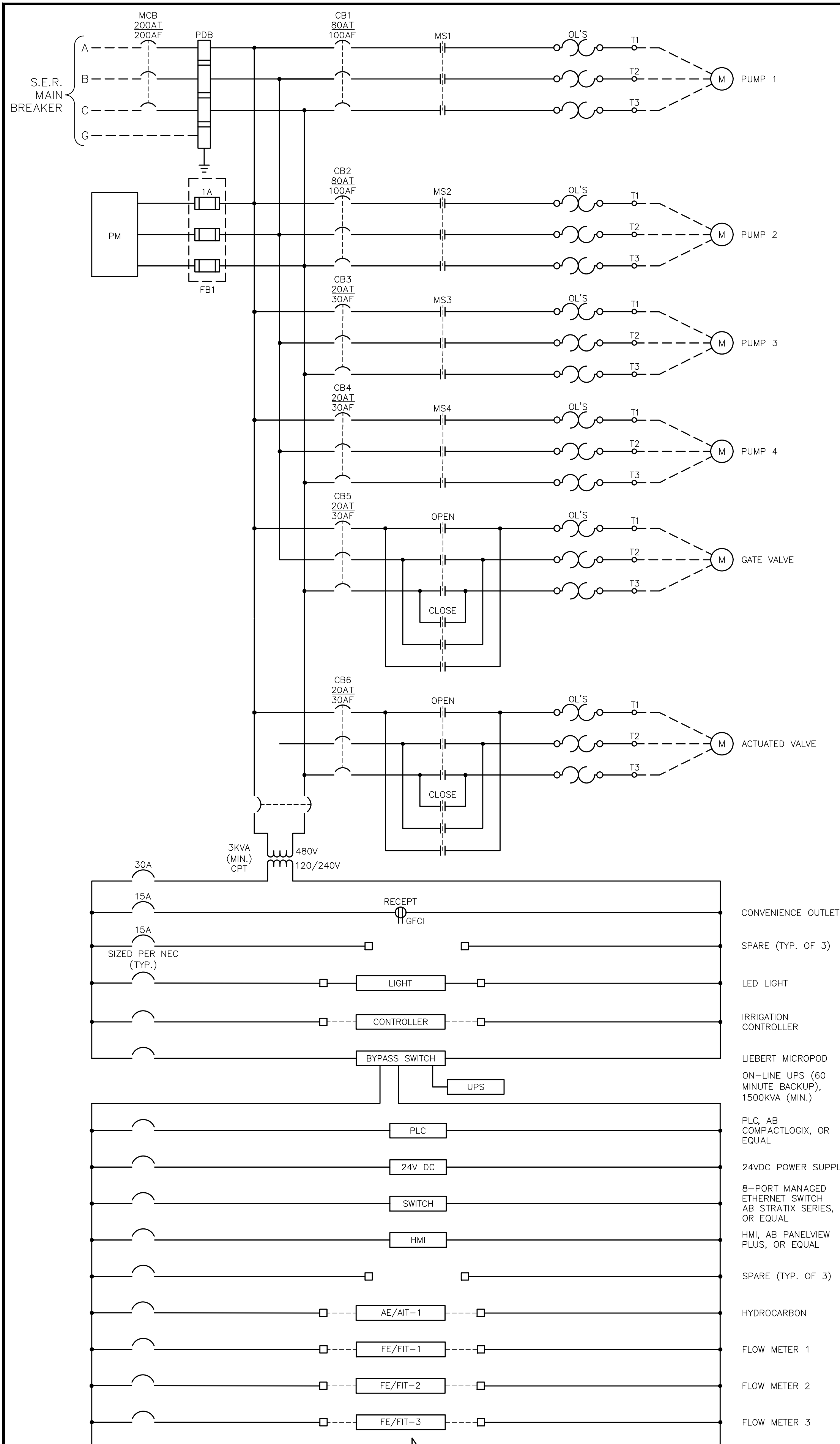
- NOTES:**
1. OUTER DOOR REMOVED TO SHOW DEADFRONT LAYOUT.
  2. ENCLOSURES SHALL BE NEMA TYPE 4X 316-S.S. WITH CONTINUOUS HINGE, CLAMPS, AND PADLOCKING HASP & STAPLE.
  3. HARDWARE SHALL BE STAINLESS STEEL.
  4. EQUIPMENT SHOWN ON DEADFRONT LAYOUT SHALL BE MOUNTED TO A 316 STAINLESS STEEL DEADFRONT WITH A CONTINUOUS HINGE AND TWO (2) QUARTER-TURN LOCKS.

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

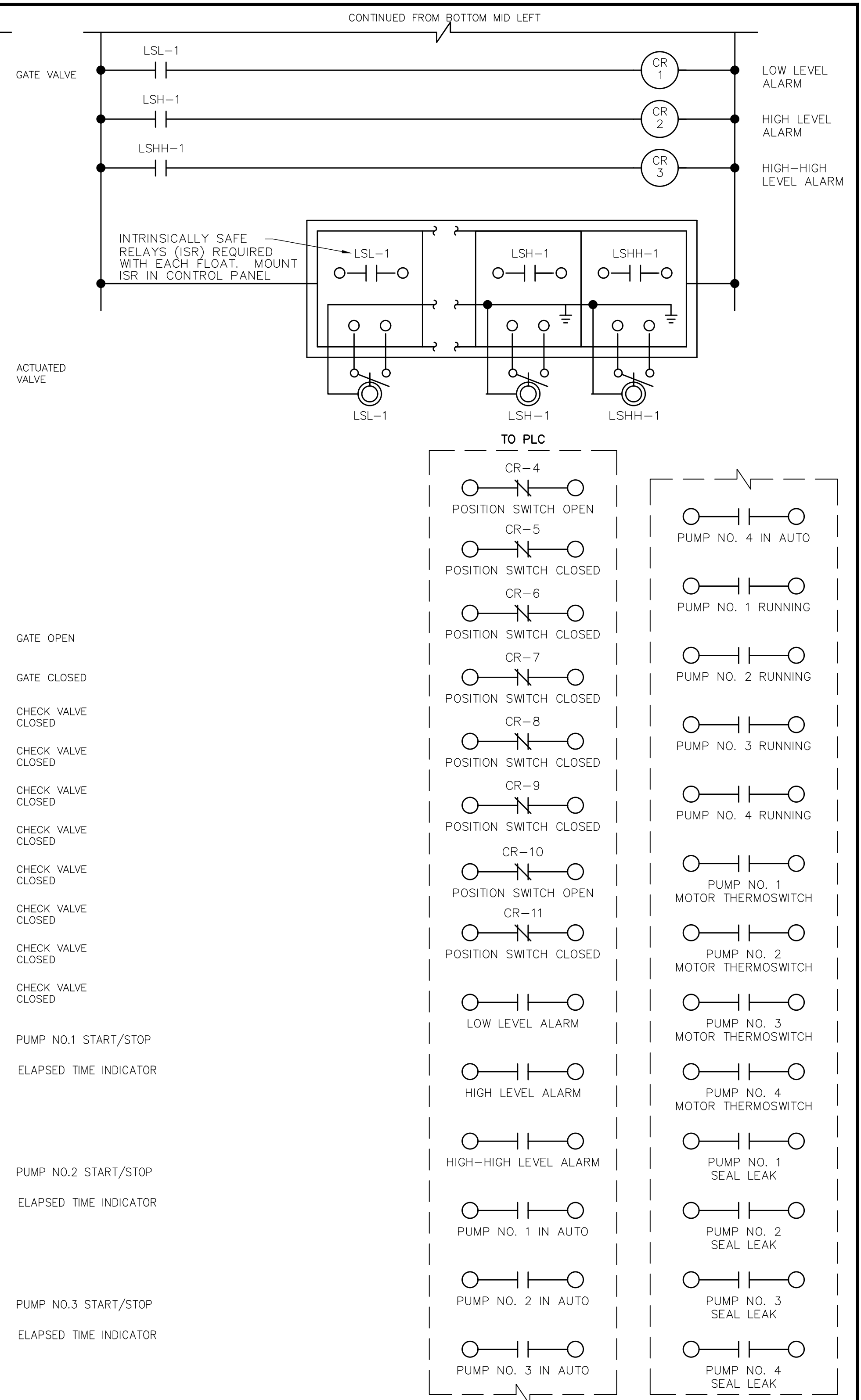
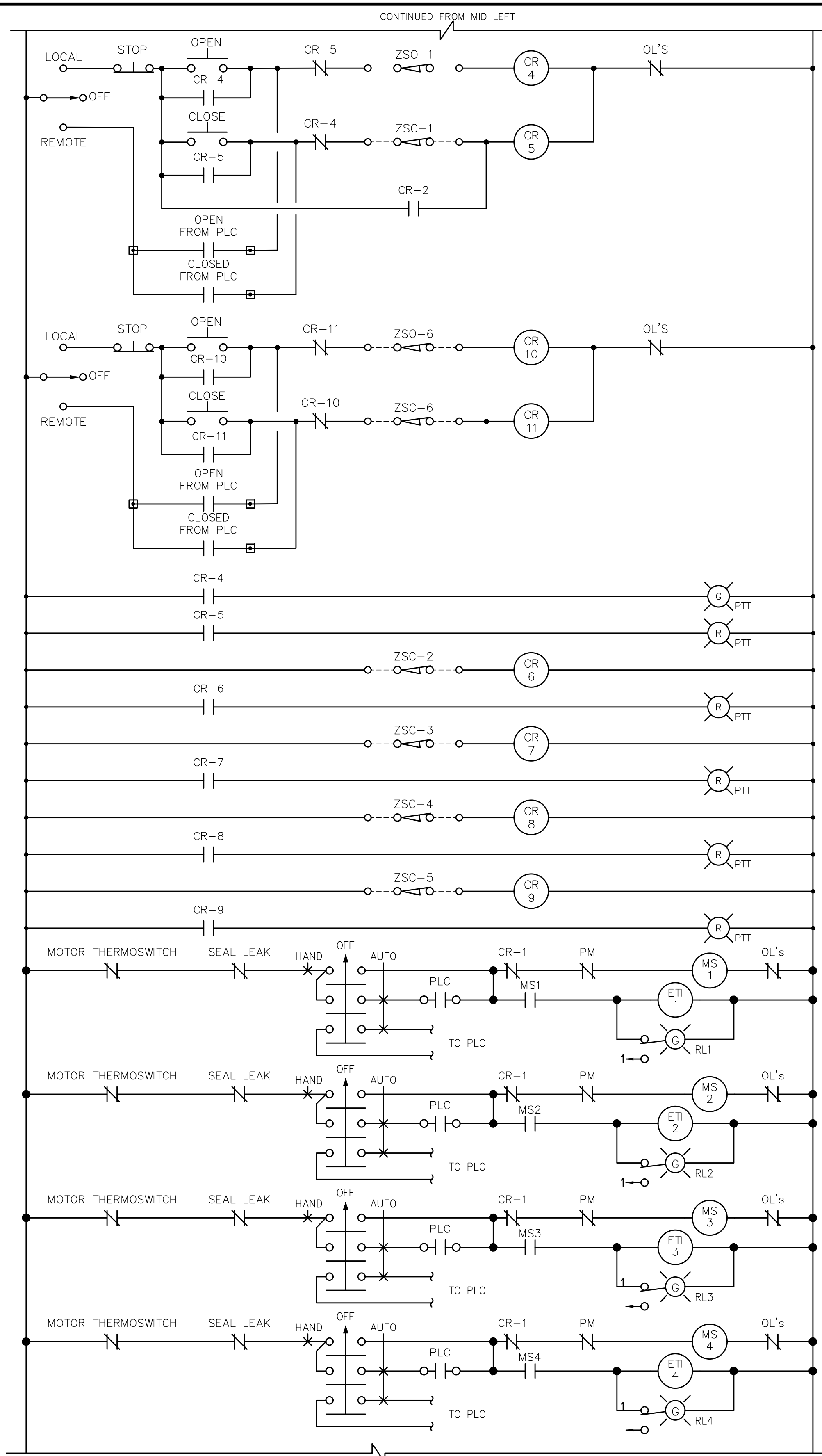


DRAWN BY		REVISIONS					CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS		
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET	NO.	
JJI						SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	86	97	
DESIGNED BY						SHEET TITLE	LOCAL CONTROL PANEL LAYOUT	DWG. NO.	
FWY						SCALE	AS SHOWN	ACCOUNT NUMBER XXXXXX	
CHECKED BY									
FWY		AS BUILT							

Date: October 15, 2023 C:\WORK\FELIX\CHRAFTWATER\SAN PASCUAL\SHEETS\SP-E-6 LOCAL CONTROL PANEL LAYOUT.DWG



LOCAL CONTROL PANEL LCP-1 WIRING DIAGRAM  
NO SCALE



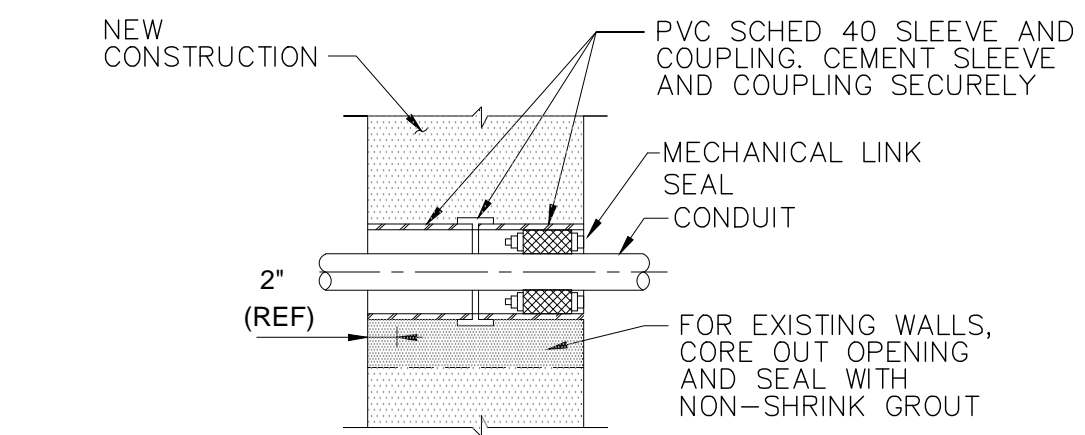
**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024



DRAWN BY	REVISIONS			
	MARK	DATE	DESCRIPTION	BY
JJI				
DESIGNED BY				
FWY				
CHECKED BY				
FWY				
		AS BUILT		

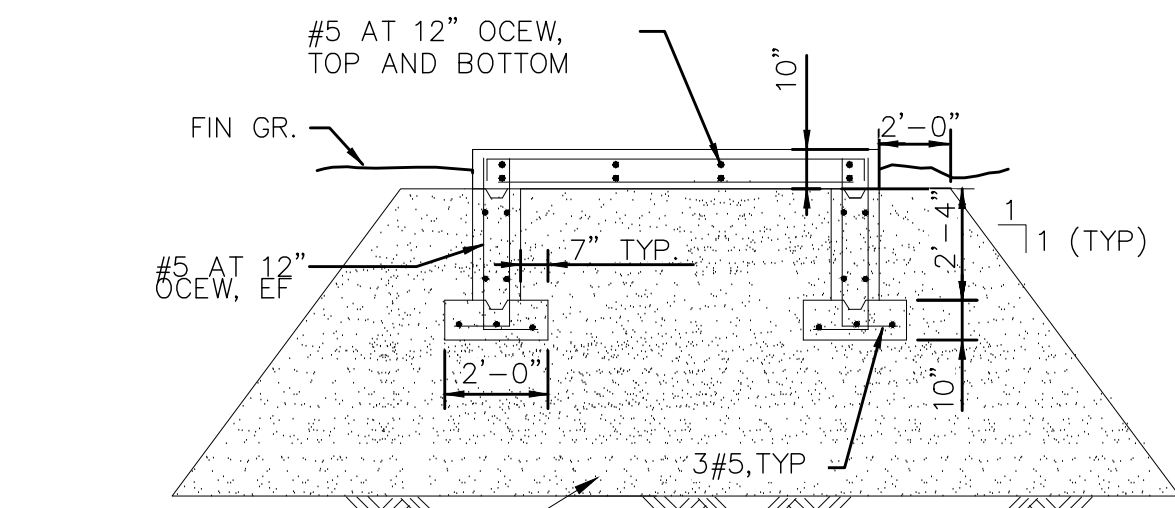
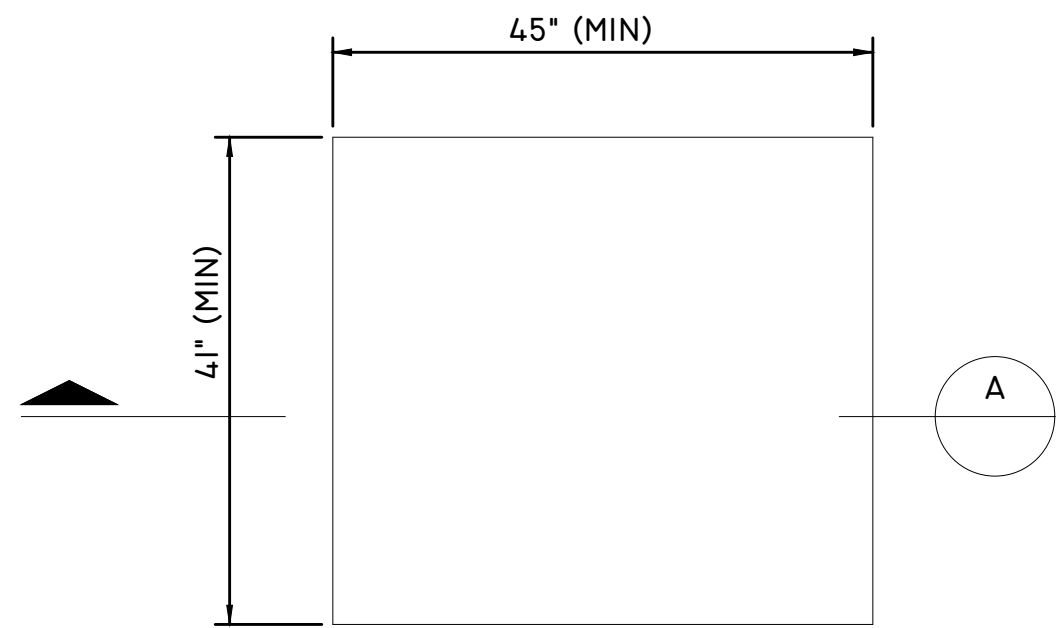
CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET
SHEET TITLE	LOCAL CONTROL PANEL WIRING DIAGRAM		87 OF 97
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
DWG. NO.			

Date: October 13, 2023 C:\WORK\FELIX\RAFTWATER\SAN PASCUAL\SHEETS\SP-E-7 LOCAL CONTROL PANEL WIRING DIAGRAM.DWG



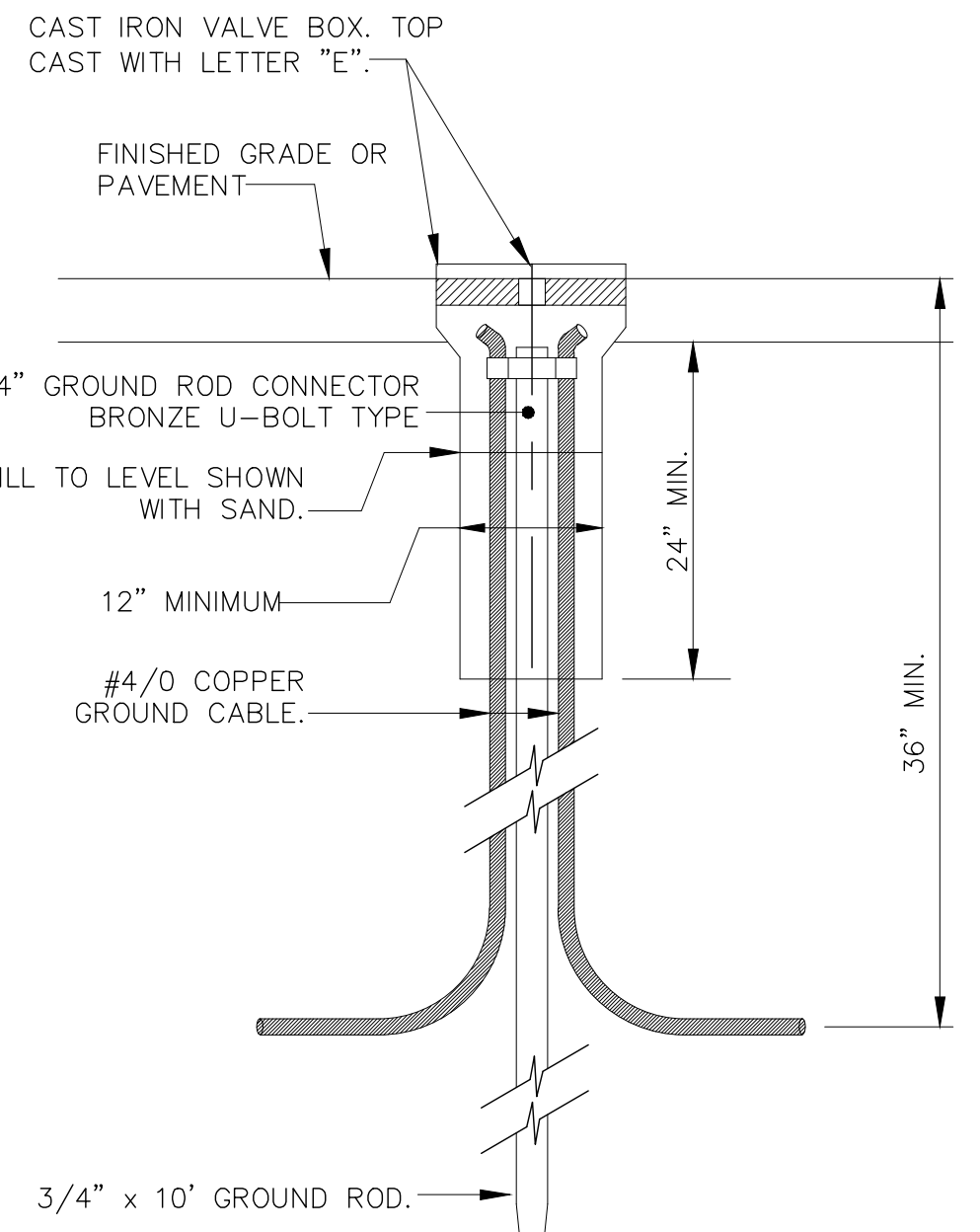
EXTERIOR WALL CONDUIT SLEEVE

DETAIL A  
NTS  
DO NOT USE BELOW GRADE



EXISTING BUILDING OR STRUCTURE

DETAIL C  
NTS



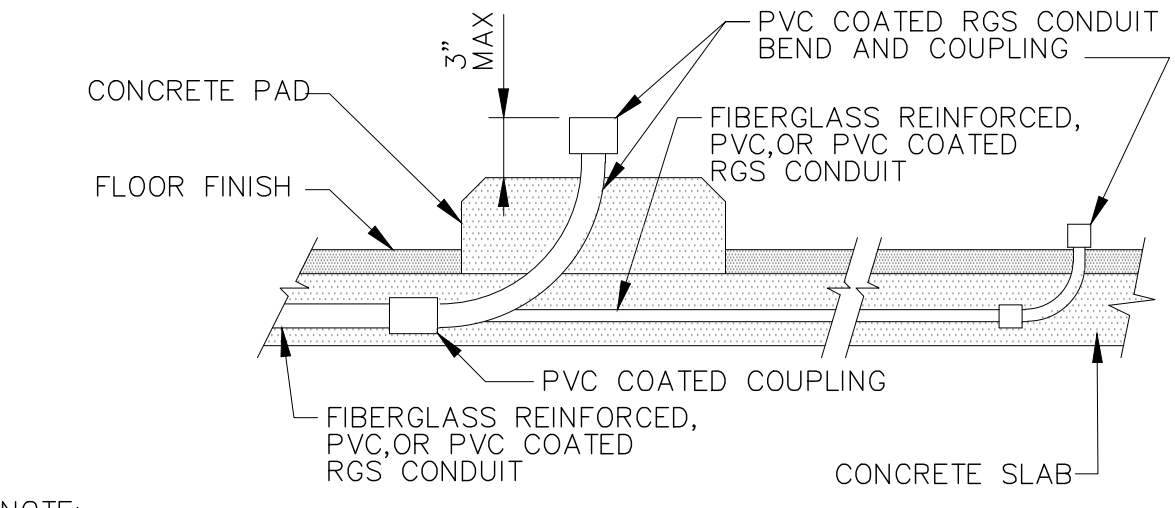
GROUND ROD AND TEST WELL

DETAIL D  
NTS

- NOTES:
1. VERIFY DIMENSIONS WITH APPROVED MANUFACTURER.
  2. HOUSEKEEPING PAD SHALL BE LEVEL AND STRAIGHT.
  3. REMOVE ALL COMPRESSIVE ORGANIC DEPOSITS AND REPLACE WITH STRUCTURE FILL WITHIN LIMITS SHOWN. EXTEND STRUCTURAL FILL TO 4'-0" BELOW GRADE (MIN.).
  4. PROVIDE 3" CLEAR COVER OVER REINFORCING FOR CONCRETE CAST AGAINST SOIL, AND 2" EVERYWHERE ELSE.
  5. PROVIDE 3/4" CHAMFER AT EXPOSED CORNERS.
  6. MINIMUM CONCRETE STRENGTH AT 28 DAYS; 4,000 PSI

HOUSE KEEPING PAD

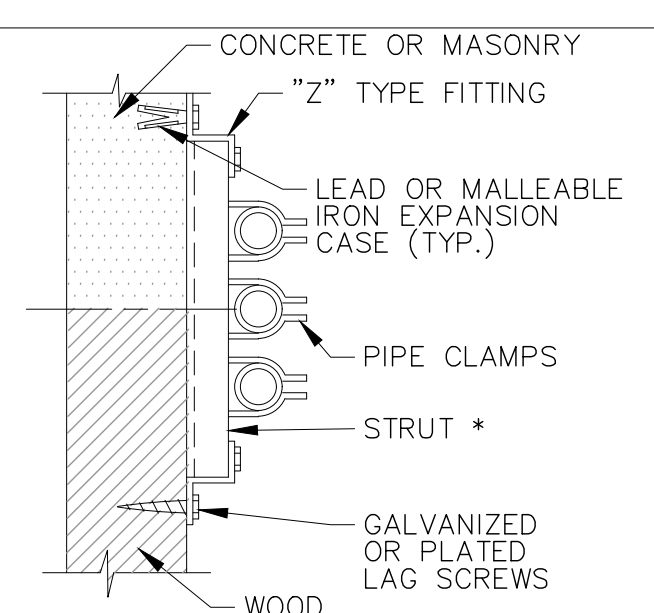
DETAIL B  
NTS



TRAFFIC-RATED CONCRETE PULLBOX/HANDHOLE

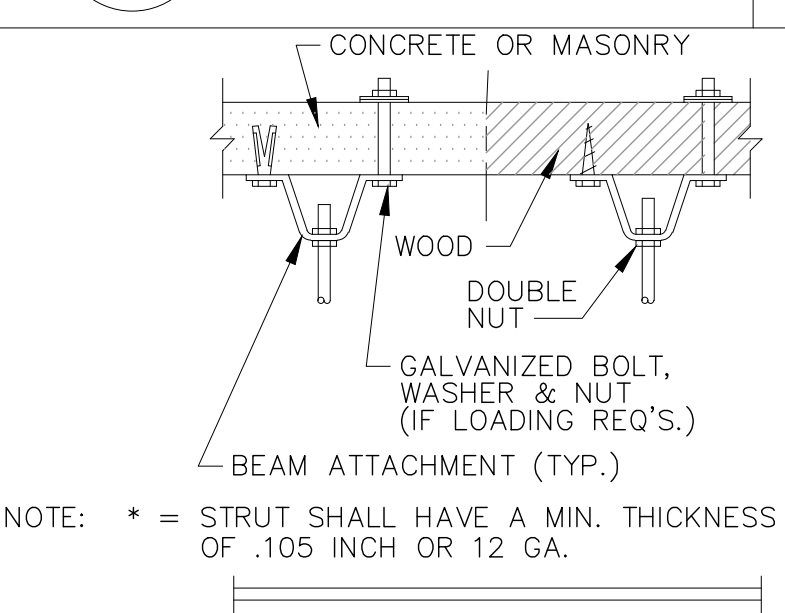
DETAIL E  
NTS

- NOTES:
1. CONCRETE PULLBOXES SHALL CONSIST OF PRECAST REINFORCED CONCRETE BOXES, EXTENSIONS, BASES, AND COVERS.
  2. VERBIAGE ON COVER SHALL BE "ELECTRICAL" OR "COMMUNICATIONS".



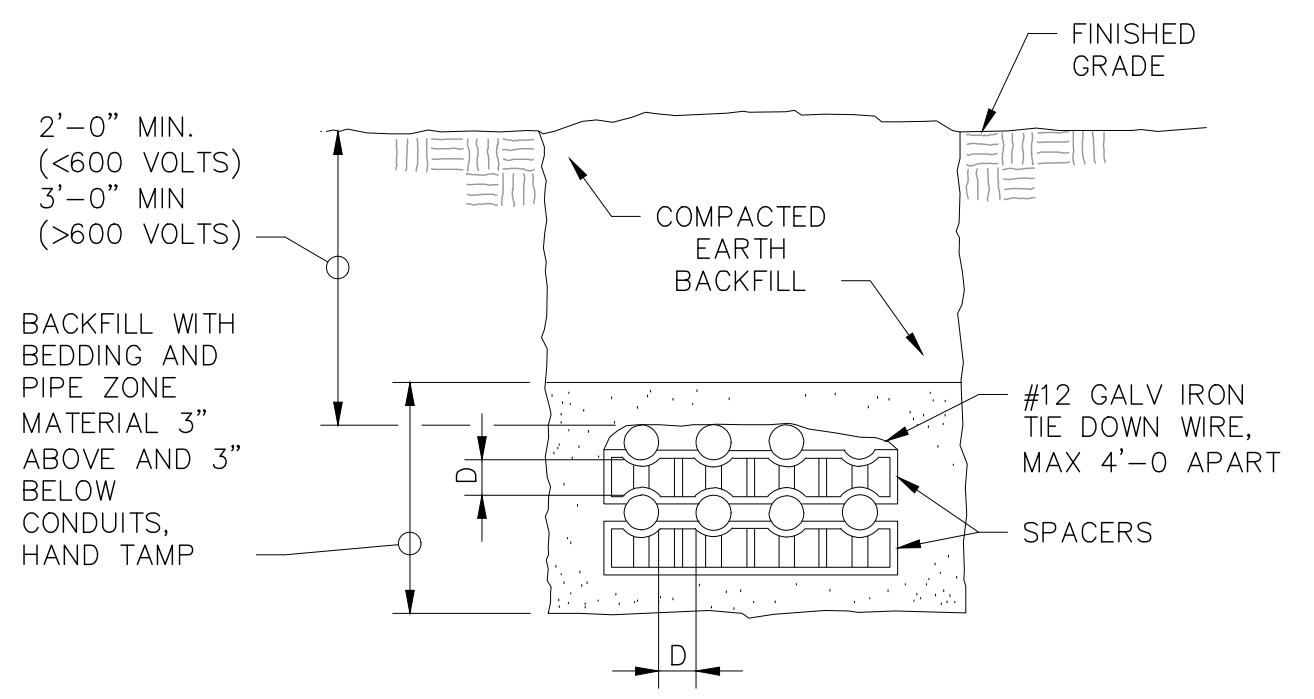
VERTICALLY RACKED AND VERTICAL RUNS

DETAIL F  
NTS



HORIZ. RACKED SUSPENDED RUN

DETAIL G  
NTS



TYPICAL UNDERGROUND CONDUIT

DETAIL H  
NTS

- NOTES:
1. INSTALLATION OF DIRECT BURIAL DUCT BANKS WHICH INCLUDE THREE OR MORE CONDUITS SHALL BE MADE IN ACCORDANCE WITH THIS DETAIL.

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

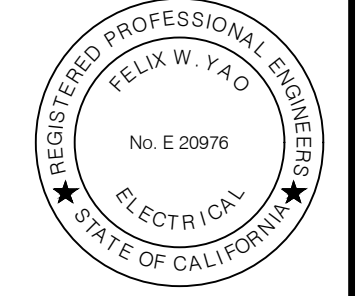
TRENCH AND CONDUIT PLACEMENT

DETAIL K  
NTS

- NOTES:
1. INSTALLATION OF DIRECT BURIAL DUCT BANKS WHICH INCLUDE TWO OR LESS CONDUITS SHALL BE MADE IN ACCORDANCE WITH THIS DETAIL.

DRAWN BY	REVISIONS				PROJECT	SHEET TITLE	SCALE	ACCOUNT NUMBER	SHEET NO.
	MARK	DATE	DESCRIPTION	BY					
JJI					SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	DETAILS	AS SHOWN	XXXXXX	88 OF 97
DESIGNED BY									
FWY									
CHECKED BY									
FWY		AS BUILT							

CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS									
PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT							SHEET	SP-E-8
SHEET TITLE	DETAILS							88	OF 97
SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX	DWG. NO.					

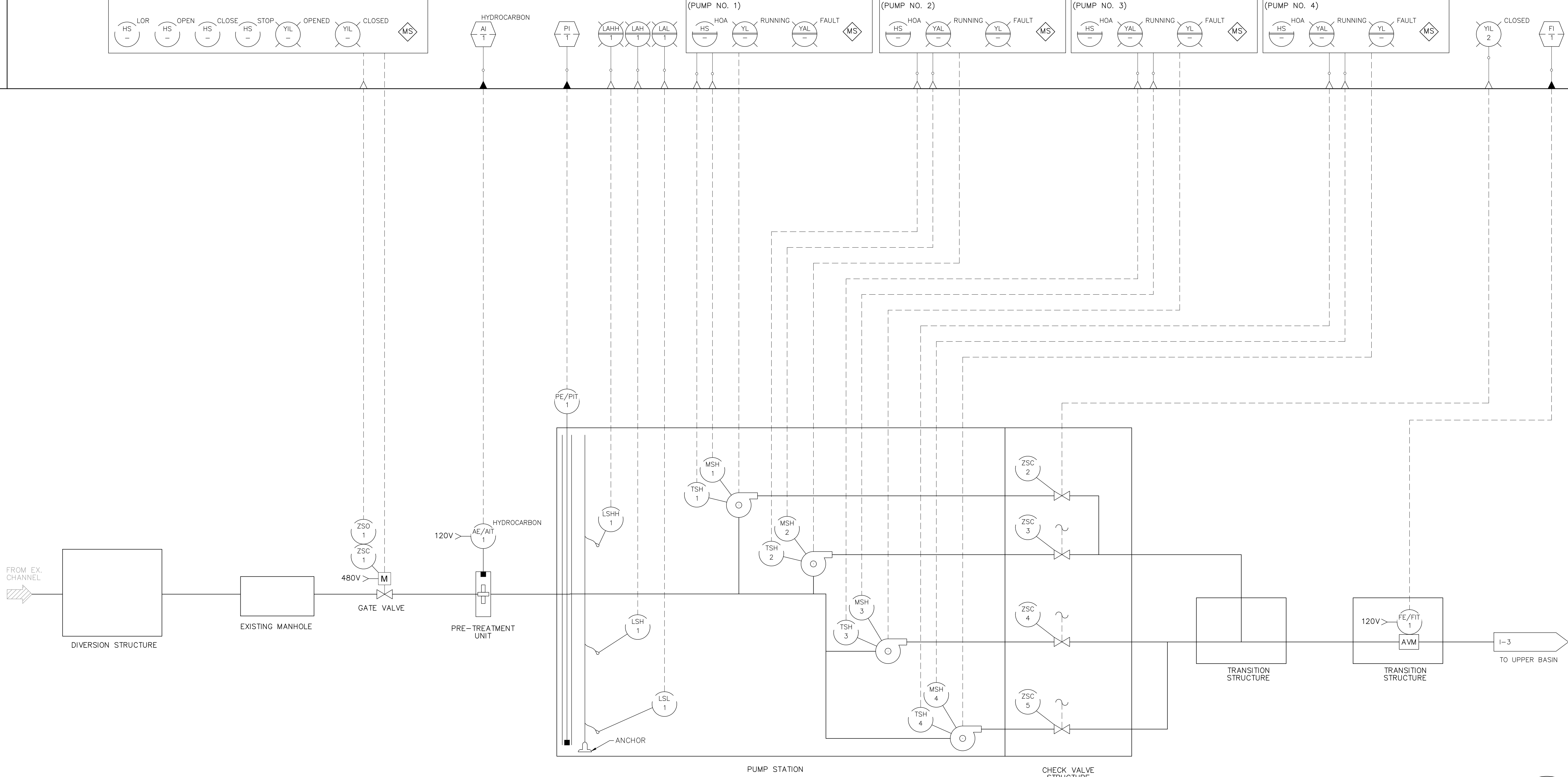


Date: October 13, 2023 C:\WORK\FELIX\RAFTWATER\SAN PASCUAL\SHEETS\SP-E-8 DETAILS.DWG

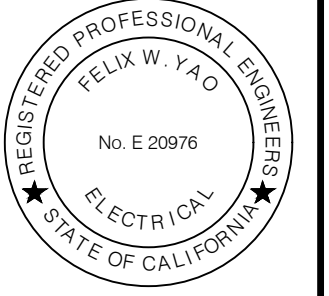


LCP

SHOWN FOR ZSC-2  
TYPICAL FOR ZSC-3,  
ZSC-4 AND ZSC-5



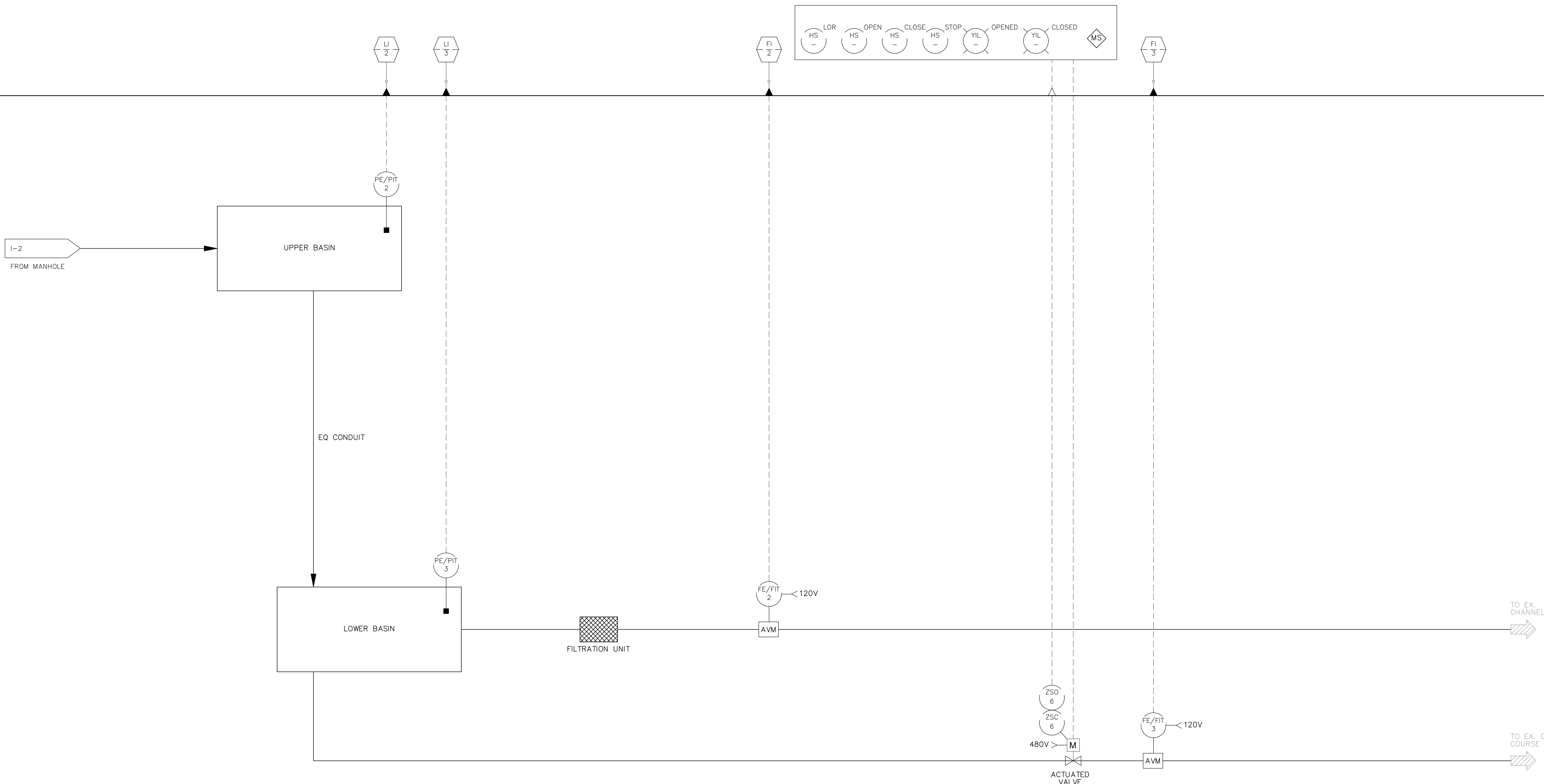
**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024



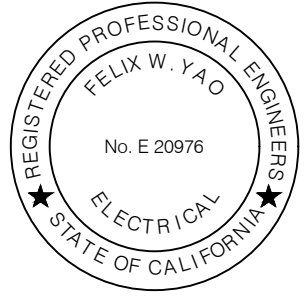
DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SHEET TITLE	SHEET NO.	TOTAL SHEETS
JJI						SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	PROCESS AND INSTRUMENTATION DIAGRAM	90	97
DESIGNED BY									
FWY									
CHECKED BY									
FWY		AS BUILT				SCALE AS SHOWN	ACCOUNT NUMBER XXXXXX		DWG. NO.

Date: October 13, 2023 C:\WORK\FELIX\CHRAFTWATER\SAN PASCUAL\SHEETS\SP-1-2 PROCESS AND INSTRUMENTATION DIAGRAM.DWG

LCP

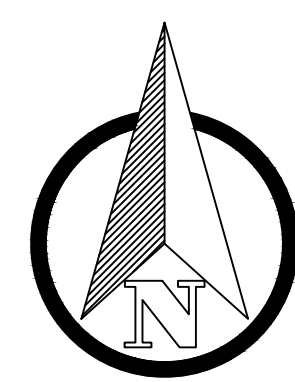
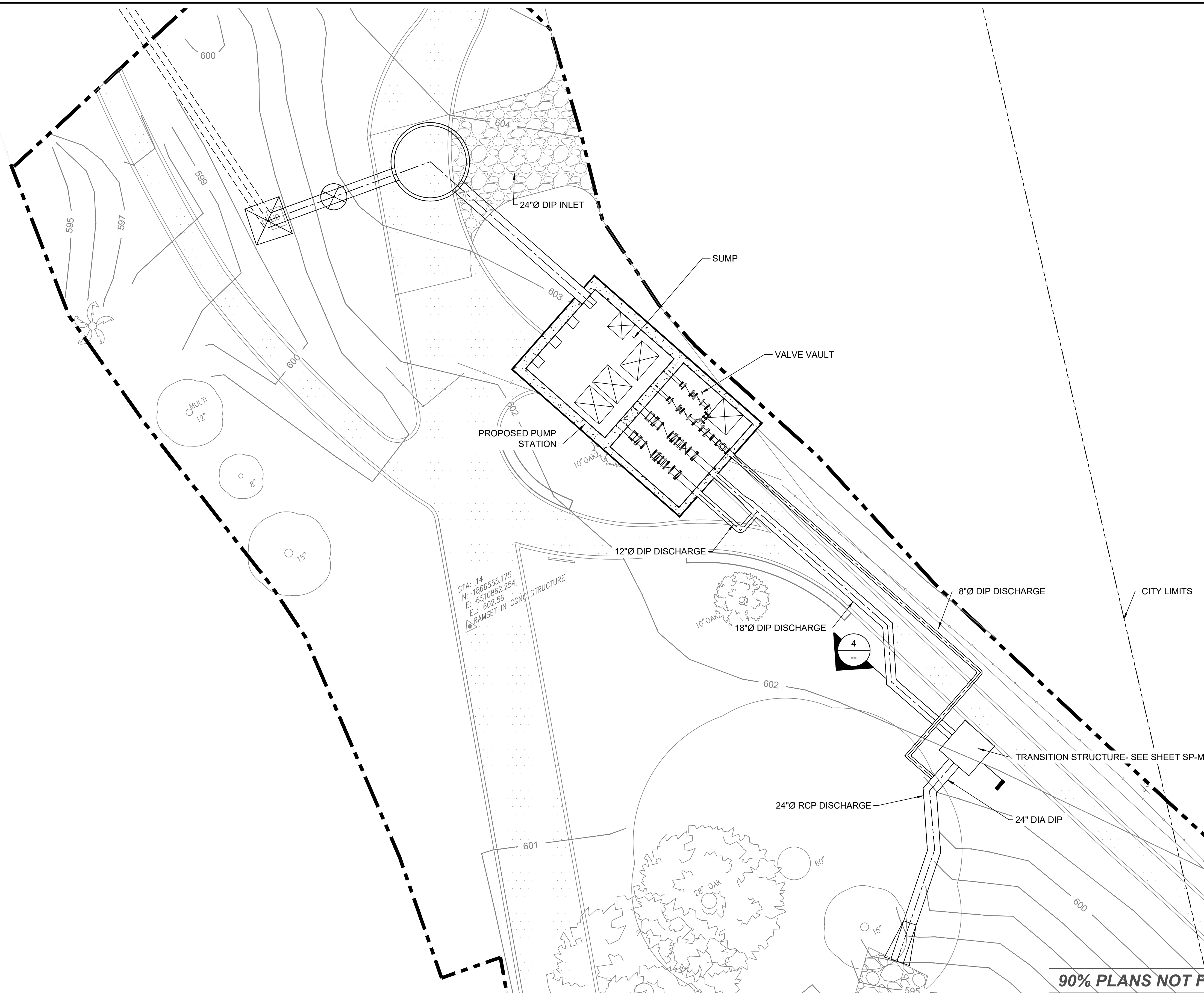


**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024



DRAWN BY JJI		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY FWY	CHECKED BY FWY	MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	SHEET SP-I-3
SCALE AS SHOWN								ACCOUNT NUMBER XXXXXX	DWG. NO. 91 OF 97
AS BUILT									

Date: October 13, 2023 C:\WORK\FELIX\CHARTWATER\SAN PASCUAL\SHEETS\SP-I-3 PROCESS AND INSTRUMENTATION DIAGRAM.DWG



8 0 8 16  
SCALE: 1" = 8'-0"



**90% PLANS NOT FOR CONSTRUCTION**

MYRIAD ENGINEERING, INC.  
1104 Corporate Way  
Sacramento, CA 95831  
916-429-3231

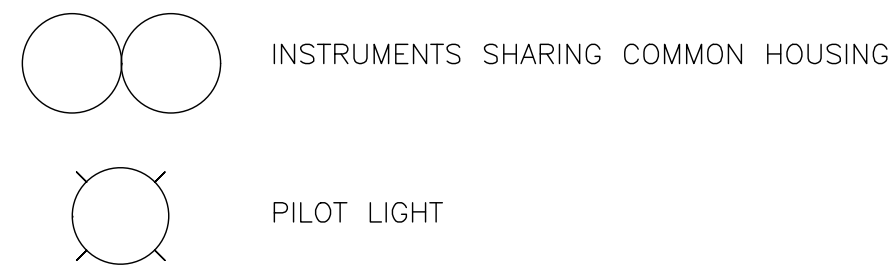
**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS					
D. CLENDENEN		MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	SHEET	1
DESIGNED BY	D. DONOHUE							SHEET TITLE	PUMP STATION SITE PLAN		46 OF 48
CHECKED BY								SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX
				AS BUILT				DWG. NO.	SP-M-1		

Date: April 22, 2020 C:\USERS\NURIA ARNOLD\ONE DRIVE - MYRIAD ENGINEERING, INC\ARROYO\_SECO FILES\90% SUBMITTAL\CA0\SAN\_PASCUAL\_90\_ 8312023001.DWG

GENERAL INSTRUMENT OR FUNCTION SYMBOLS

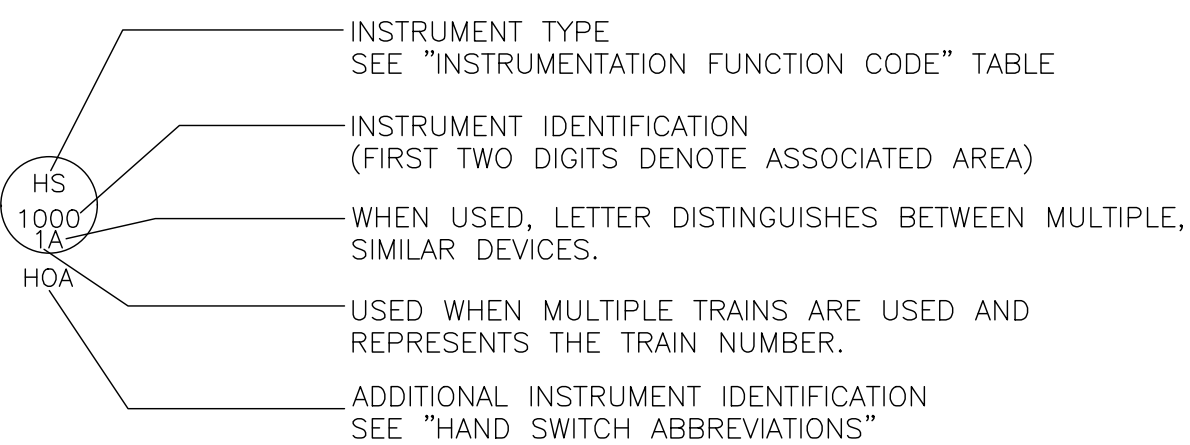
SHARED DISPLAY / SHARED CONTROL		COMPUTER SOFTWARE	DISCRETE	LOCATION AND ACCESSIBILITY
PRIMARY CHOICE	SECONDARY CHOICE			
				FIELD MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
				PRIMARY CONTROL PANEL MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
				PRIMARY CONTROL PANEL MOUNTED AND NOT NORMALLY OPERATOR ACCESSIBLE
				SECONDARY CONTROL PANEL MOUNTED AND NORMALLY OPERATOR ACCESSIBLE
				SECONDARY CONTROL PANEL MOUNTED AND NOT NORMALLY OPERATOR ACCESSIBLE



MISCELLANEOUS SYMBOLS

- MOTOR
- INDICATES INTERLOCK OR LOGIC IN A MOTOR CONTROL CENTER
- INDICATES GENERAL OR MISCELLANEOUS HARDWIRED INTERLOCK
- MOTOR STARTER
- SILICONE CONTROL RECTIFIER
- VARIABLE FREQUENCY DRIVE
- PURGE OR FLUSHING DEVICE

TYPICAL TAG NUMBERS & DESIGNATION



HAND SWITCH ABBREVIATIONS

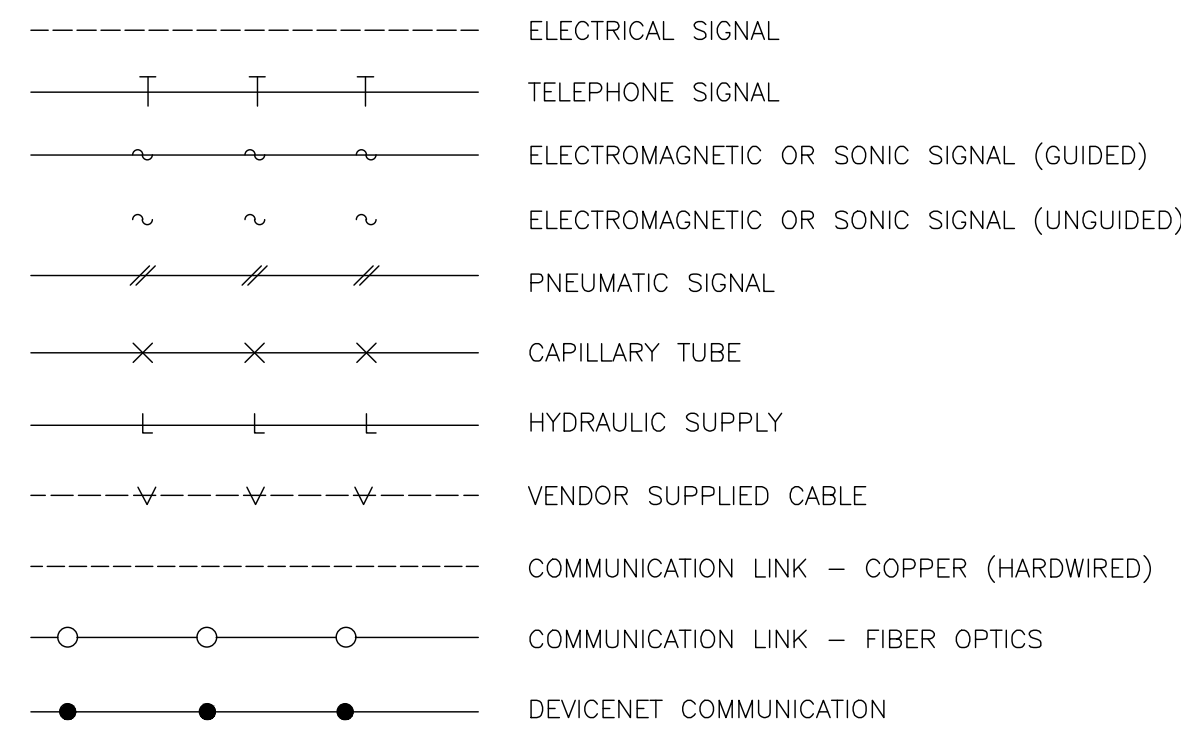
- AO = AUTO/OFF
- AM = AUTO/MANUAL
- CM = COMPUTER/MANUAL
- CL = COMPUTER/LOCAL
- E-STOP = EMERGENCY STOP
- FR = FORWARD/REVERSE
- FOR = FORWARD/OFF/REVERSE
- FS = FAST SLOW
- FOS = FAST/OFF/SLOW
- HOA = HAND/OFF/AUTO
- LLS = LEAD/LAG/STANDBY
- LOC = LOCAL/OFF/COMPUTER
- LOS = LOCKOUT/STOP
- LA = LOCAL/AUTO
- LR = LOCAL/REMOTE
- OC = OPEN/CLOSE
- OCA = OPEN/CLOSE/AUTO
- OO = ON/OFF
- OOA = ON/OFF/AUTO
- OSC = OPEN/STOP/CLOSE
- RSL = RAISE/STOP/LOWER
- SS = START/STOP
- SOR = START/OFF/RESET

INSTRUMENTATION FUNCTION CODE

FIRST LETTERS	COLUMN 1		SUCCEEDING LETTERS		
	MEASURED/INITIATING VARIABLE	VARIABLE MODIFIER	COLUMN 3 READOUT/PASSIVE FUNCTION	COLUMN 4 OUTPUT/ACTIVE FUNCTION	COLUMN 5 FUNCTION MODIFIER
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	USER'S CHOICE			CONTROL	CLOSED
D	USER'S CHOICE	DIFFERENCE, DIFFERENTIAL			DEVIATION
E	VOLTAGE		SENSOR, PRIMARY ELEMENT		
F	FLOW, FLOW RATE	RATIO			
G	USER'S CHOICE		GLASS, GAUGE, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT		INDICATE		
J	POWER		SCAN		
K	TIME, SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOISTURE				MIDDLE, INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	TORQUE		LIGHT		OPEN
P	PRESSURE		POINT (TEST CONNECTION)		
Q	QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE		
R	RADIATION		RECORD		RUN
S	SPEED, FREQUENCY	SAFETY		SWITCH	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	
V	VIBRATION, MECHANICAL, ANALYSIS			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE		WELL, PROBE		
X	UNCLASSIFIED (1)	X-AXIS	ACCESSORY DEVICES, UNCLASSIFIED (1)	UNCLASSIFIED (1)	UNCLASSIFIED (1)
Y	EVENT, STATE, PRESENCE	Y-AXIS		AUXILIARY DEVICES	
Z	POSITION, DIMENSION	Z-AXIS, SAFETY INSTRUMENT SYSTEM		DRIVER, ACTUATOR, UNCLASSIFIED, FINAL CONTROL ELEMENT	

TABLE NOTES:  
(1) WHEN USED SYMBOL OR SIGNAL LINE IS ANNOTATED.

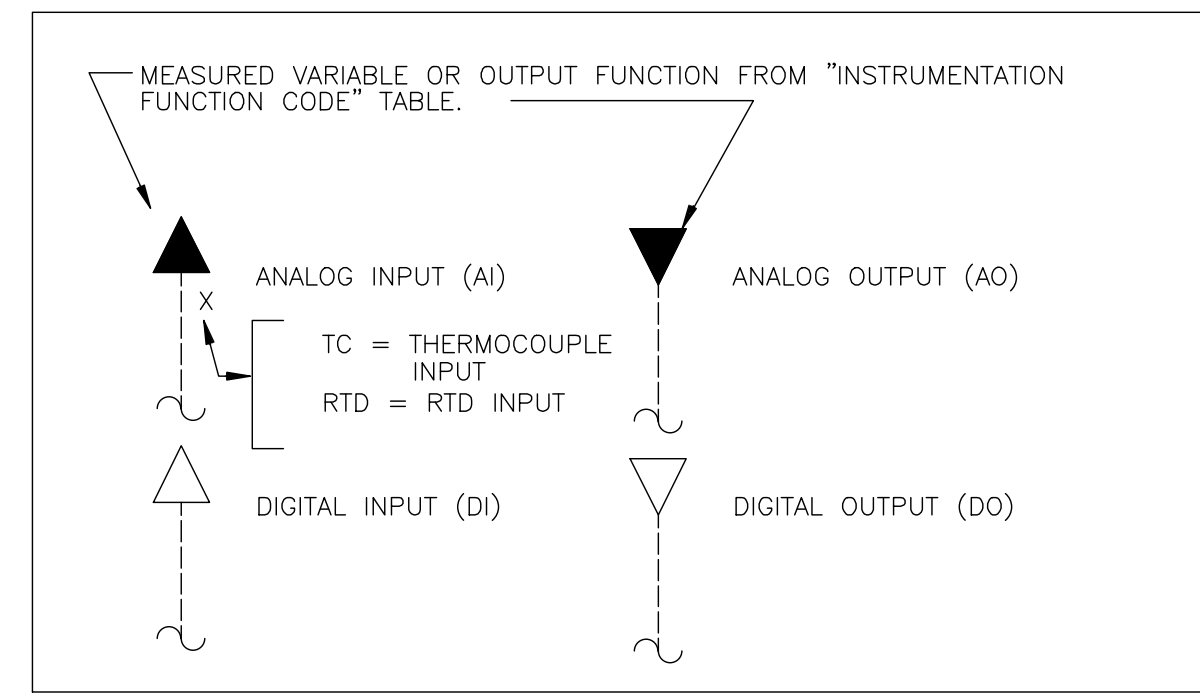
INSTRUMENT LINE SYMBOLS



ELECTRICAL / AIR SOURCES

- UPS --- UPS POWERED ELECTRICAL SOURCE
- ES --- ELECTRICAL SOURCE
- IA --- INSTRUMENT AIR SOURCE

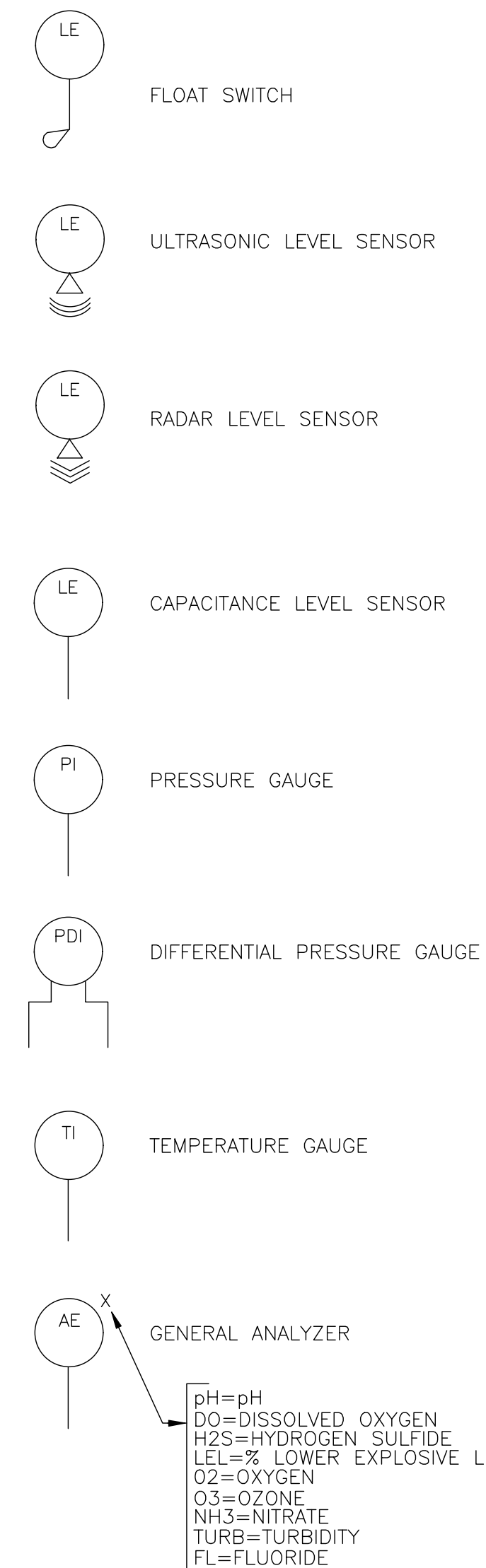
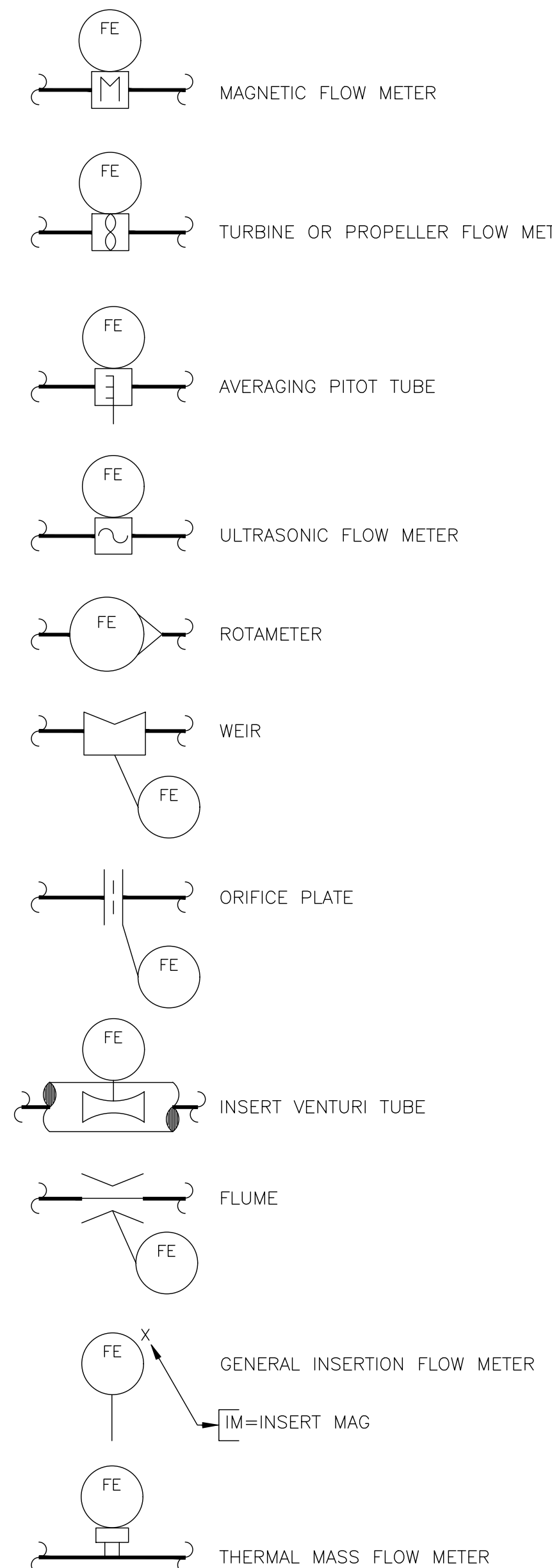
I/O SIGNALS



GENERAL NOTES

- THIS LEGEND APPLIES TO P&IDS ONLY AND MAY DIFFER FROM LEGENDS FOR OTHER SHEETS.
- IN GENERAL THIS LEGEND SHEET AND THE P&IDS ARE BASED ON THE INTERNATIONAL SOCIETY OF AUTOMATION (ISA) STANDARDS FOR PRACTICES FOR INSTRUMENTATION. SOME MODIFICATIONS, ADDITIONS AND ALTERATIONS HAVE BEEN MADE AS REQUIRED TO ACCOMMODATE PROJECT REQUIREMENTS.
- SOME PROCESS ITEMS SUCH AS EQUIPMENT ISOLATION VALVES, BYPASS LINES, ETC., WHICH ARE NOT CRITICAL FOR AN UNDERSTANDING OF THE INSTRUMENTATION FUNCTIONS ARE NOT SHOWN ON THE P&IDS.
- SEE ELECTRICAL AND MECHANICAL SHEETS AND SPECIFICATIONS FOR ADDITIONAL CONTROL AND INTERLOCK REQUIREMENTS.
- LIGHTER WEIGHT LINES, SHOWN AS \_\_\_\_\_, INDICATE EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE EXISTING. WEIGHTED LINES, SHOWN AS \_\_\_\_\_ OR HEAVIER \_\_\_\_\_, INDICATE EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE NEW. DASHED WEIGHTED LINES, SHOWN AS \_\_\_\_\_, INDICATED EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE GROUPED AS A PACKAGE.

PRIMARY ELEMENTS



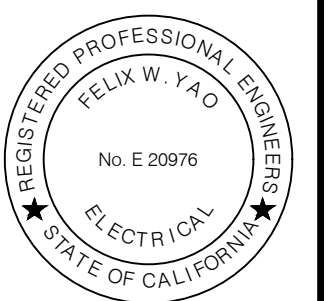
GENERAL ABBREVIATIONS

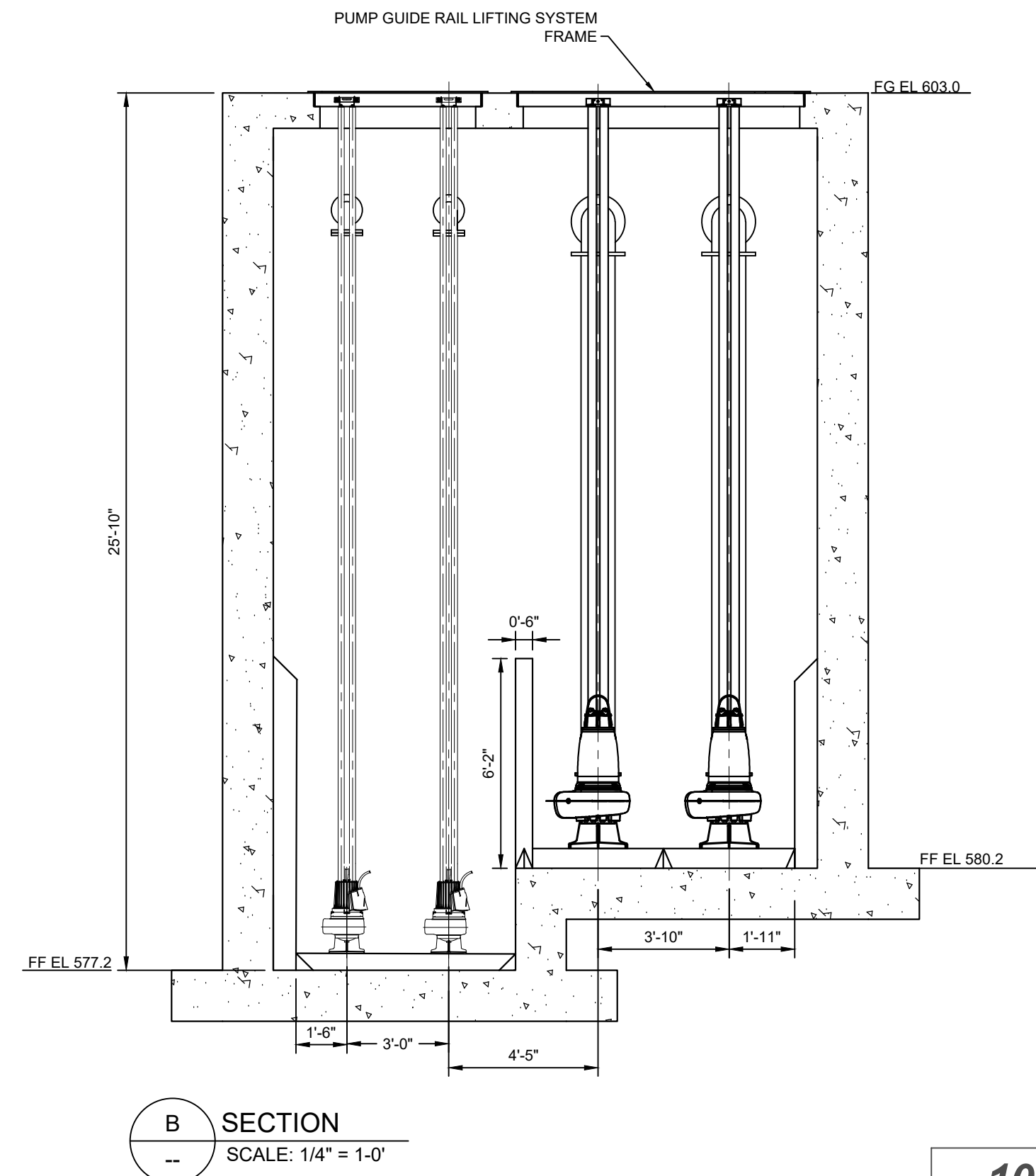
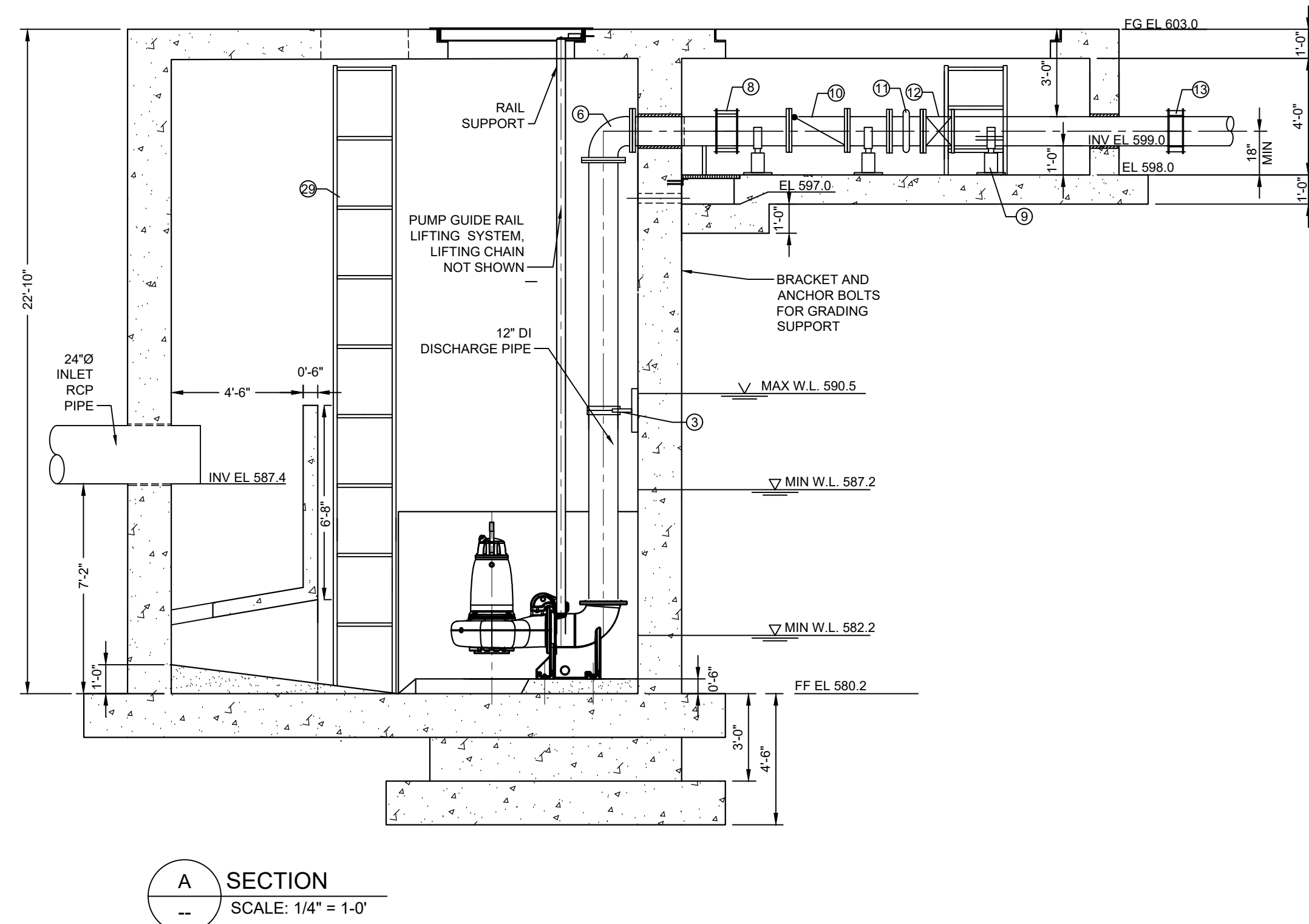
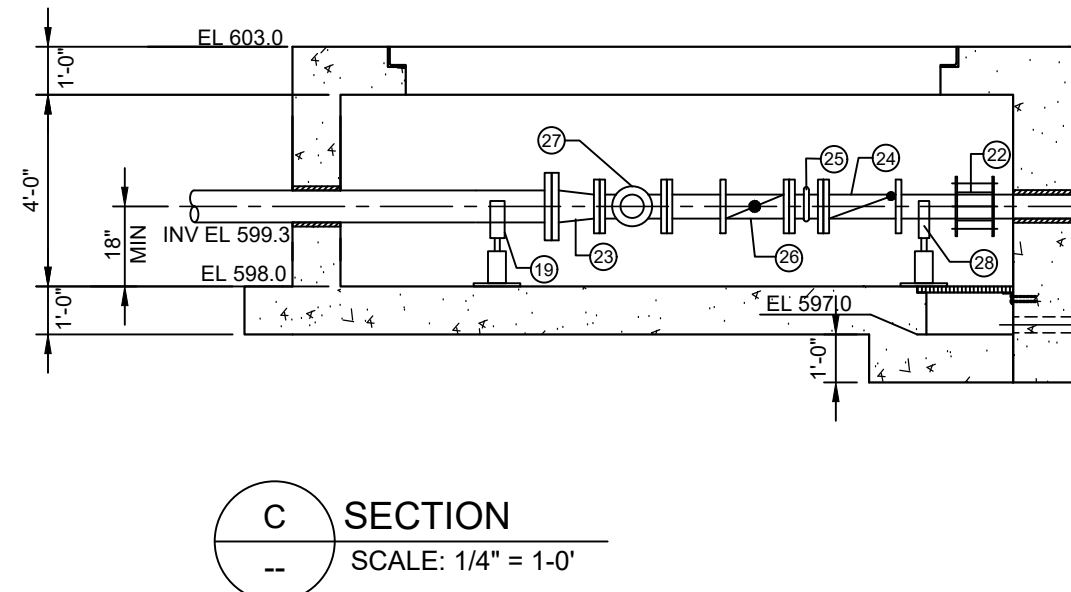
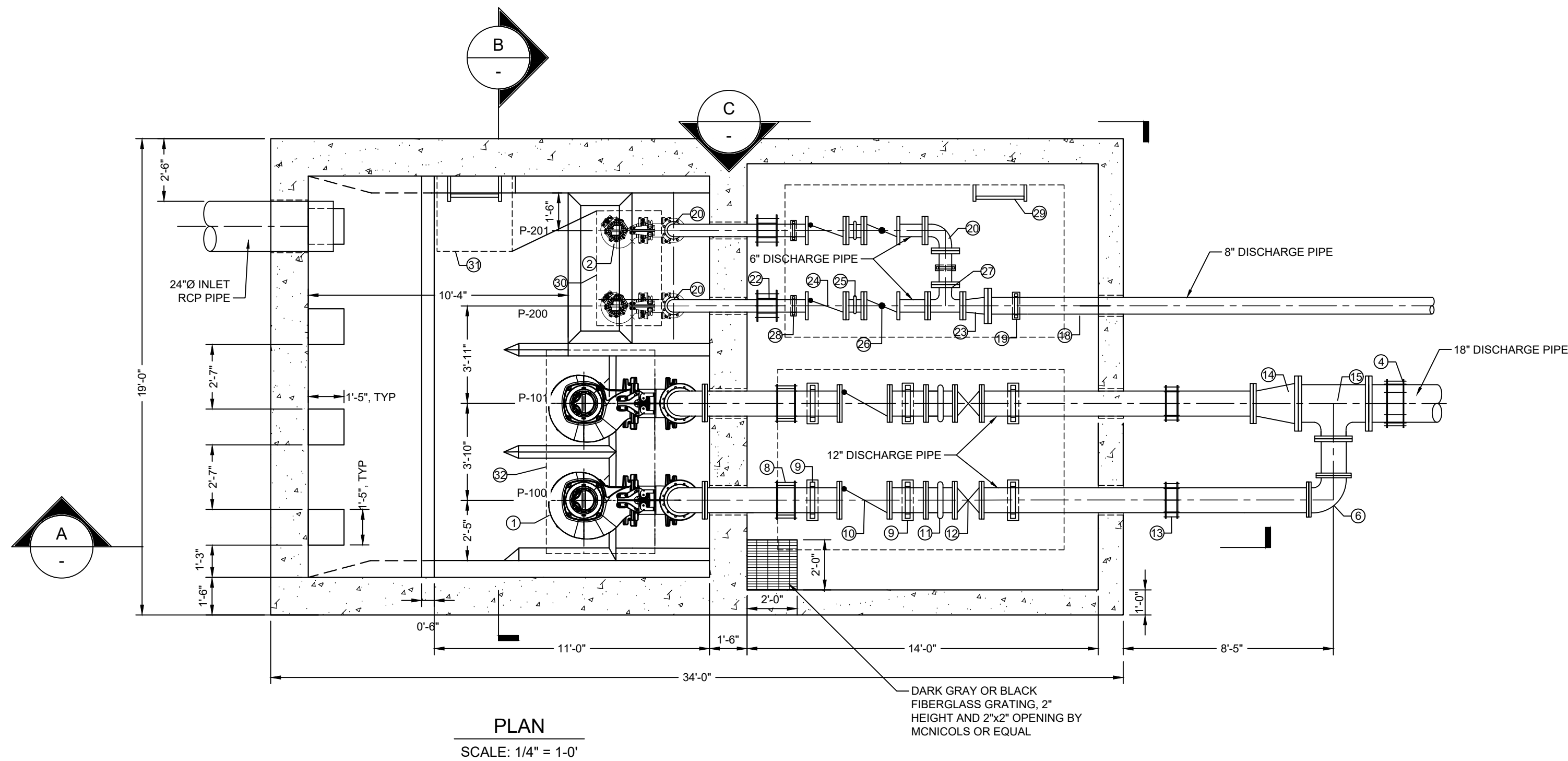
- AI ANALOG IN
- AO ANALOG OUT
- AVM AREA VELOCITY FLOW METER
- CPU CENTRAL PROCESSOR UNIT
- DI DIGITAL OR DISCRETE INPUT
- DO DIGITAL OUTPUT OR DISSOLVED OXYGEN DRAIN
- DR DEGRITTED WASTEWATER
- EFE EXCESS FLOW EFFLUENT
- FC FAIL CLOSED OR FINAL CLARIFIER
- FO FAIL OPEN OR FIBER OPTIC
- FOPP FIBER OPTIC PATCH PANEL
- HMI HUMAN MACHINE INTERFACE
- MCC MOTOR CONTROL CENTER
- ML MIXED LIQUOR
- MLSS MIXED LIQUOR SUSPENDED SOLIDS
- NC NORMALLY CLOSED
- NH3 AMMONIA
- NO NORMALLY OPENED
- NPW NON-POTABLE WATER
- NO NORMALLY OPEN
- ORP OXIDATION REDUCTION POTENTIAL
- PE PRIMARY EFFLUENT
- PLC PROGRAMMABLE LOGIC CONTROLLER
- PQM POWER QUALITY MONITORS
- PSD PRIMARY SLUDGE
- PSM PRIMARY SCUM
- PW PLANT WATER
- RAS RETURN ACTIVATED SLUDGE
- RIO REMOTE INPUT/OUTPUT
- RTU REMOTE TERMINAL UNIT
- RW RAW WASTEWATER
- SSE SECONDARY EFFLUENT
- SSM SECONDARY SCUM
- SW SCREENED WASTEWATER
- TSS TOTAL SUSPENDED SOLIDS
- UPS UNINTERRUPTIBLE POWER SUPPLY
- VFD VARIABLE FREQUENCY DRIVE

- pH=pH
- DO=DISSOLVED OXYGEN
- H2S=HYDROGEN SULFIDE
- LEL=% LOWER EXPLOSIVE LIMIT
- O2=OXYGEN
- O3=OZONE
- NH3=NITRATE
- TURB=TURBIDITY
- FL=FLUORIDE

**PRELIMINARY - NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY		REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	LEGEND	SHEET	SP-I-1
JJI						SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		89	OF 97
DESIGNED BY						SHEET TITLE	ACCOUNT NUMBER	XXXXXX	DWG. NO.
FWY						SCALE	AS SHOWN		
CHECKED BY									
FWY		AS BUILT							

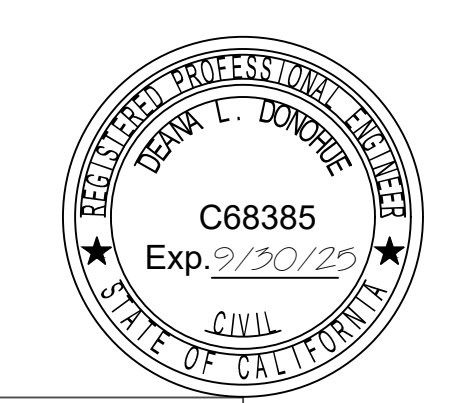




CONSTRUCTION NOTES	
1	HIGH FLOW SUBMERSIBLE PUMPS PER PROJECT SPECIFICATIONS (TYP 2)
2	LOW FLOW SUBMERSIBLE PUMP PER PROJECT SPECIFICATIONS (TYP 2)
3	PIPE WALL SUPPORT, SEE STRUCTURAL DETAIL X, SHEET SP-S-1
4	18" RESTRAINT COUPLING PER PROJECT SPECIFICATIONS
5	18" DI PIPE, CLASS 53
6	12" 90° BEND
7	12" DI PIPE, CLASS 53
8	12" RESTRAINT COUPLING PER PROJECT SPECIFICATIONS
9	12" PIPE SUPPORT
10	12" SWING CHECK VALVE WITH LEVER & WEIGHT (FL, TYP 2)
11	12" VICTAULIC GROOVED END COUPLING
12	12" RESILIENT WEDGE GATE VALVE (FL, TYP 2)
13	12" FLEX CLPLG
14	12X18 DI INCREASER
15	12X18 DI TEE
16	8" DI PIPE, CLASS 53
17	8" DI 22.5° BEND
18	8" DI 90° BEND
19	8" PIPE SUPPORT
20	6" DI 90° BEND
21	6" DI PIPE, CLASS 53
22	6" RESTRAINT COUPLING PER PROJECT SPECIFICATIONS
23	6"X8" DI REDUCER
24	6" SWING CHECK VALVE WITH LEVER & WEIGHT
25	6" VICTAULIC GROOVED END COUPLING
26	6" BUTTERFLY VALVE
27	6" DI TEE
28	6" PIPE SUPPORT
29	LADDER WITH SAF-T-CLIMB PER SPECIFICATIONS (TYP 3)
30	31" X 55" ACCESS HATCH
31	36" X 36" ACCESS HATCH
32	52" X 97.5" ACCESS HATCH

**PUMP DESIGN CONFIGURATION (Wet pit installation) (Pumps P-100 and P-101)**  
The pump shall be supplied with a mating cast iron 12 inch discharge connection and be capable of delivering 3520 (each) GPM at 27 FT. TDH. An additional point on the same curve shall be 3651 GPM at 27 feet total head. Shut off head shall be 52 feet (minimum). The pump(s) shall be automatically and firmly connected to the discharge connection, guided by no less than two guide bars extending from the top of the station to the discharge connection. There shall be no need for personnel to enter the wet-well. Sealing of the pumping unit to the discharge connection shall be accomplished by a machined metal to metal watertight contact. Sealing of the discharge interface with a diaphragm, O-ring or profile gasket will not be acceptable. No portion of the pump shall bear directly on the sump floor. Each pump shall be fitted with 25 feet of stainless steel lifting chain or stainless steel cable. The working load of the lifting system shall be 50% greater than the pump unit weight.

**PUMP DESIGN CONFIGURATION (Wet pit installation) (Pumps P-200 and P-201)**  
The pump shall be supplied with a mating cast iron 6 inch discharge connection and be capable of delivering 449 (each) GPM at 25.5 FT. TDH. An additional point on the same curve shall be 523 GPM at 22 feet total head. Shut off head shall be 38 feet (minimum). The pump(s) shall be automatically and firmly connected to the discharge connection, guided by no less than two guide bars extending from the top of the station to the discharge connection. There shall be no need for personnel to enter the wet-well. Sealing of the pumping unit to the discharge connection shall be accomplished by a machined metal to metal watertight contact. Sealing of the discharge interface with a diaphragm, O-ring or profile gasket will not be acceptable. No portion of the pump shall bear directly on the sump floor. Each pump shall be fitted with 25 feet of stainless steel lifting chain or stainless steel cable. The working load of the lifting system shall be 50% greater than the pump unit weight.



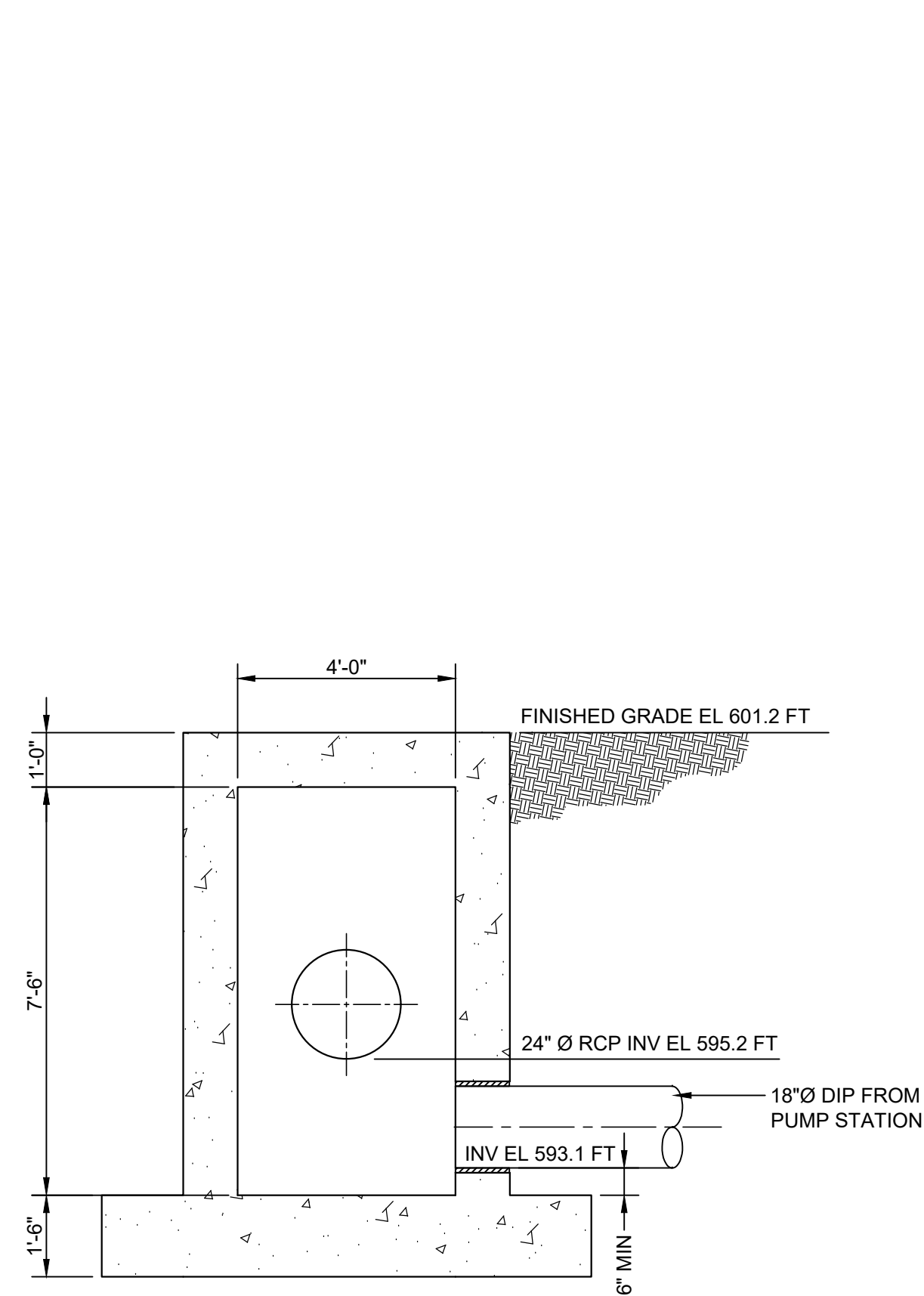
**100% PLANS NOT FOR CONSTRUCTION**



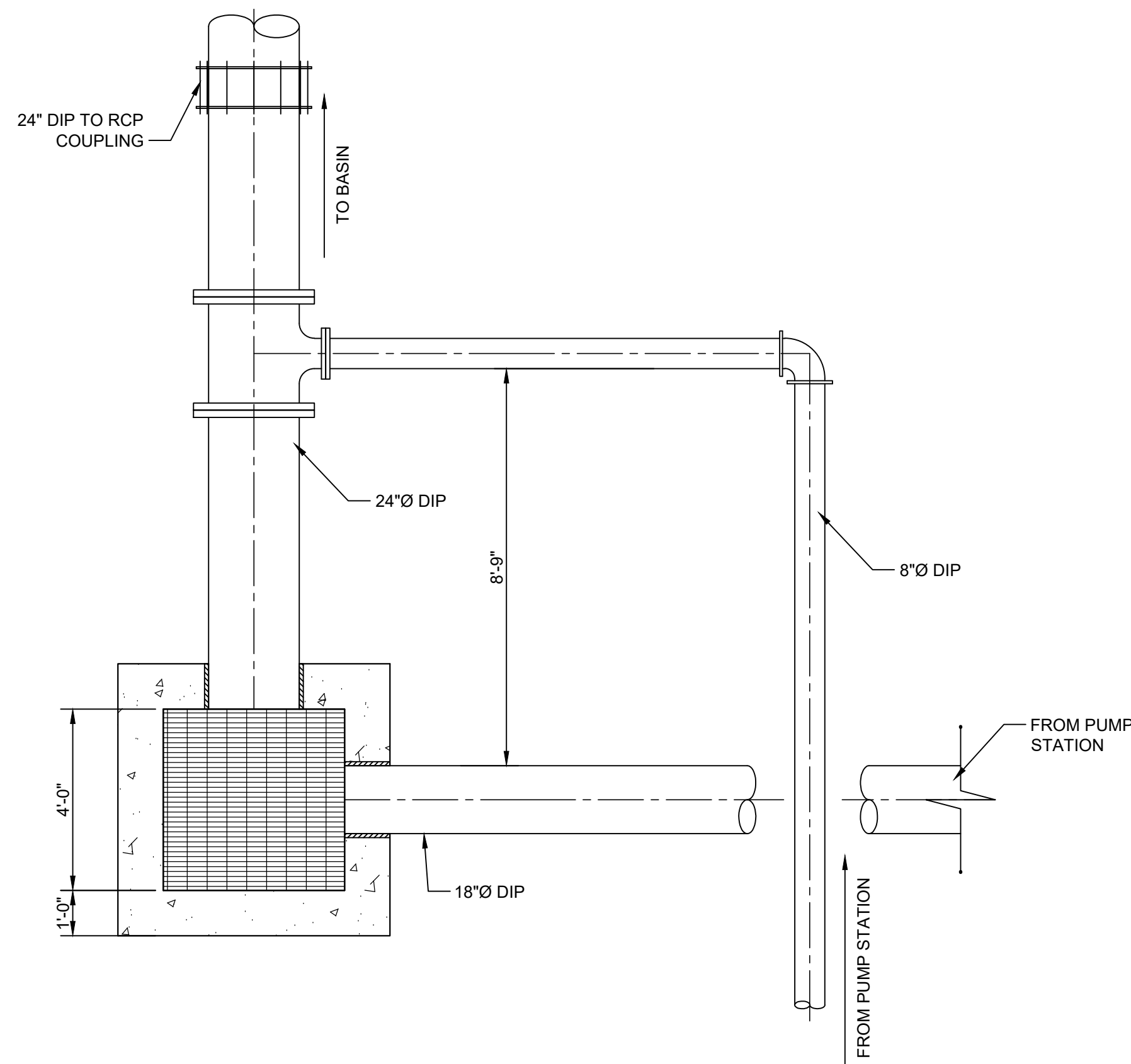
**PRELIMINARY -NOT FOR CONSTRUCTION**  
06/03/2024

DRAWN BY					REVISIONS					CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS					
KAB					MARK	DATE	DESCRIPTION	BY	CHKD.	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT		SHEET	2
DESIGNED BY										SHEET TITLE	PUMP STATION PLAN & SECTIONS		47 OF 49		
D. DONOHUE										SCALE	AS SHOWN		ACCOUNT NUMBER	XXXXXX	
CHECKED BY												DWG. NO.	SP-M-2		
					AS BUILT										

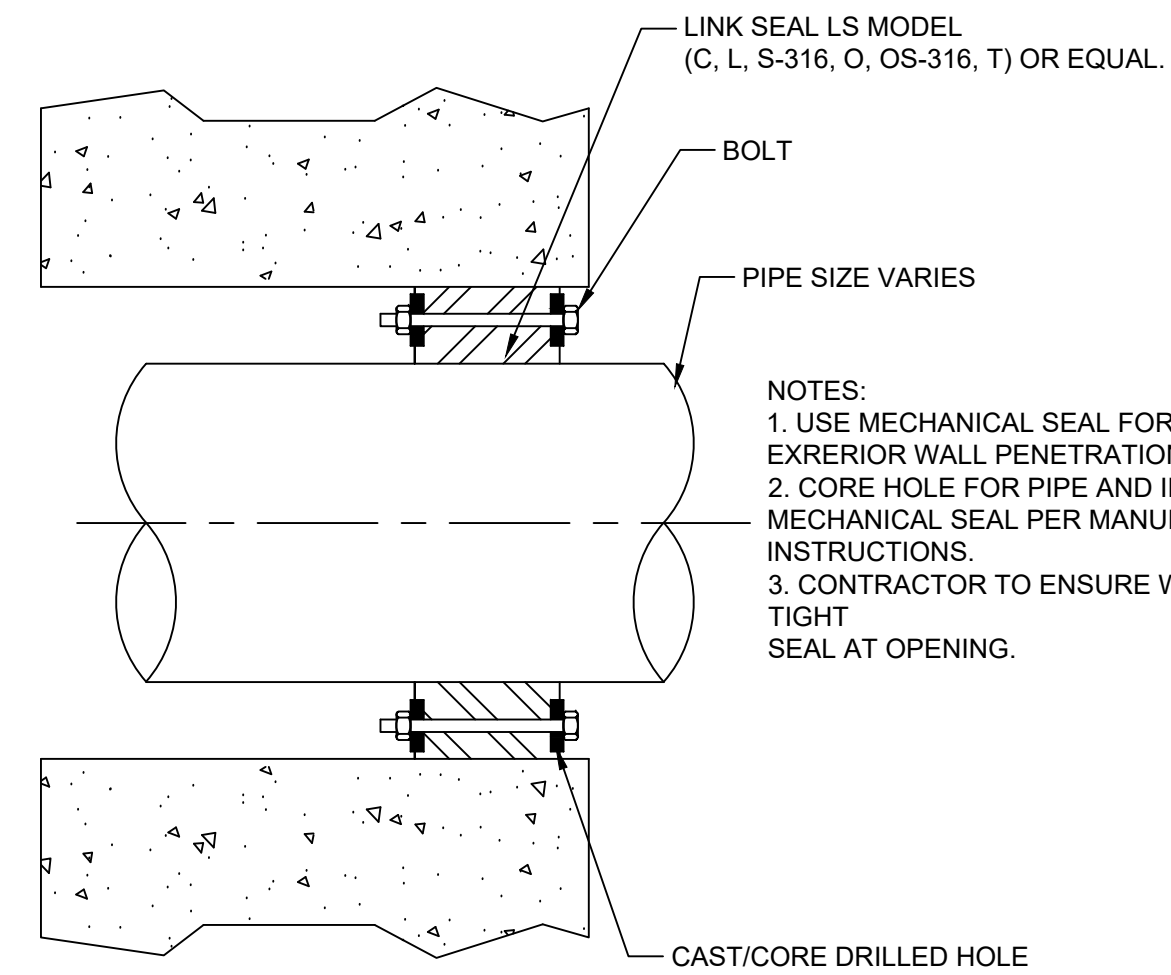
Date: April 22, 2020 C:\USERS\KROSMIA\DC\ACCDGCS\ATG USA\WRIAD - SAN PASCUAL PS\PROJECT FILES\3 PR FILES\DWG\SHEETS\SAN PASCUAL\_90\_ 8312023001.DWG



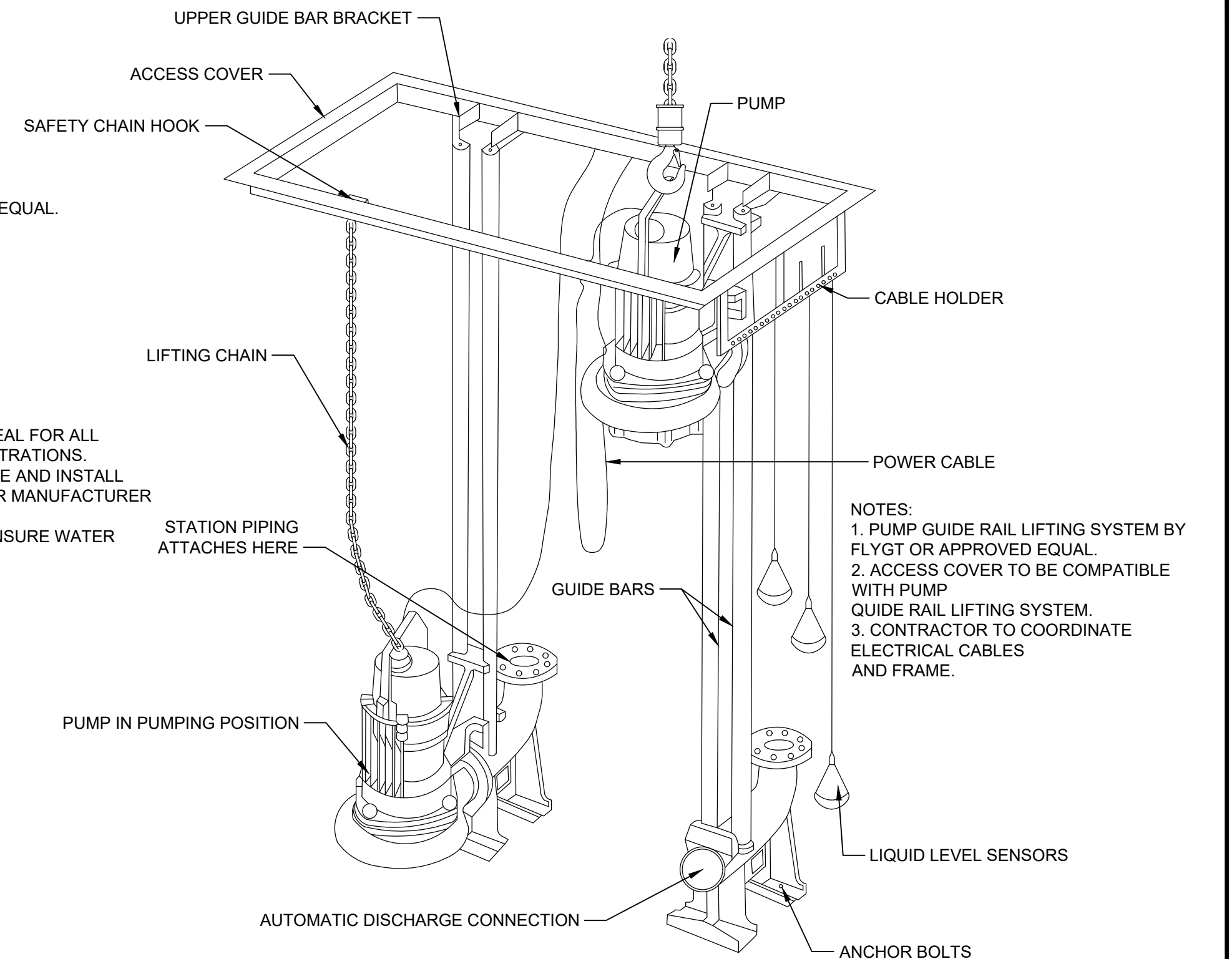
1 TRANSITION STRUCTURE  
SCALE: 3/8" = 1'-0"



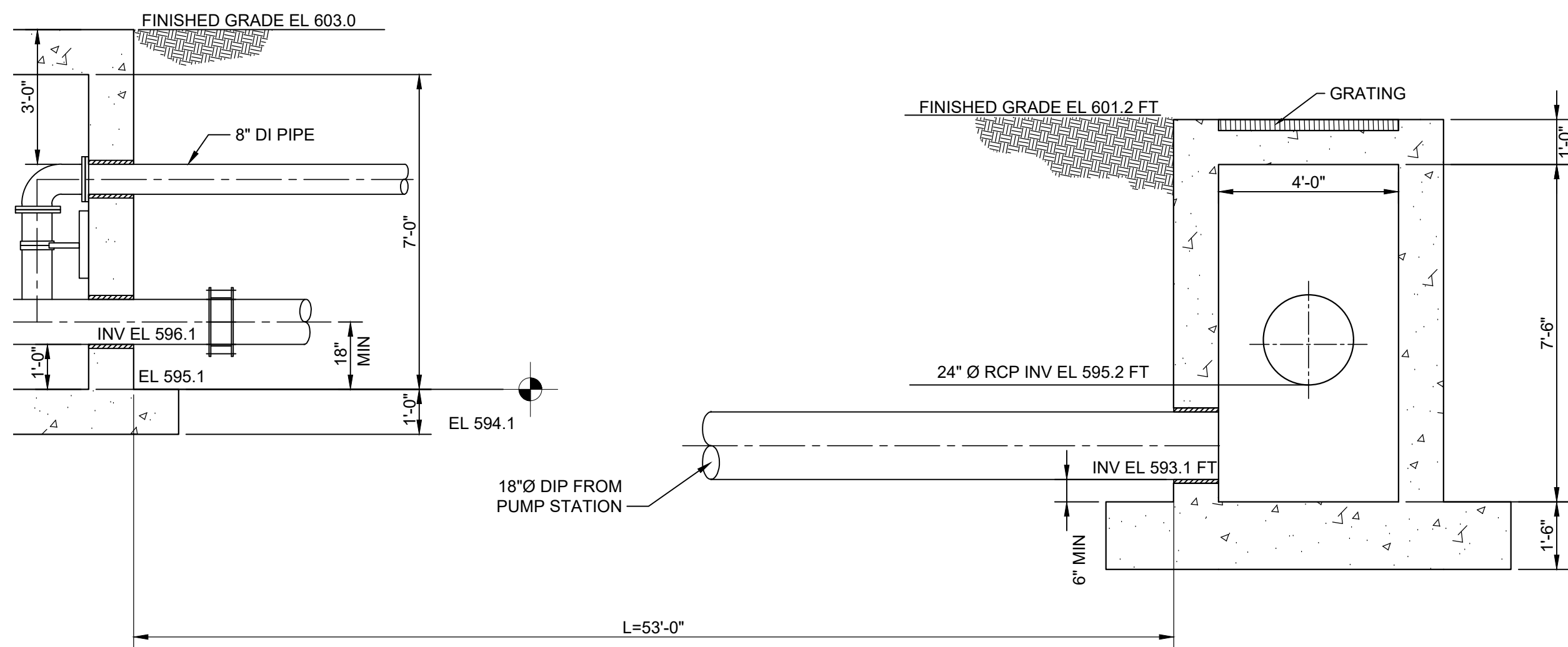
2 TRANSITION STRUCTURE SECTION  
SCALE: 3/8" = 1'-0"



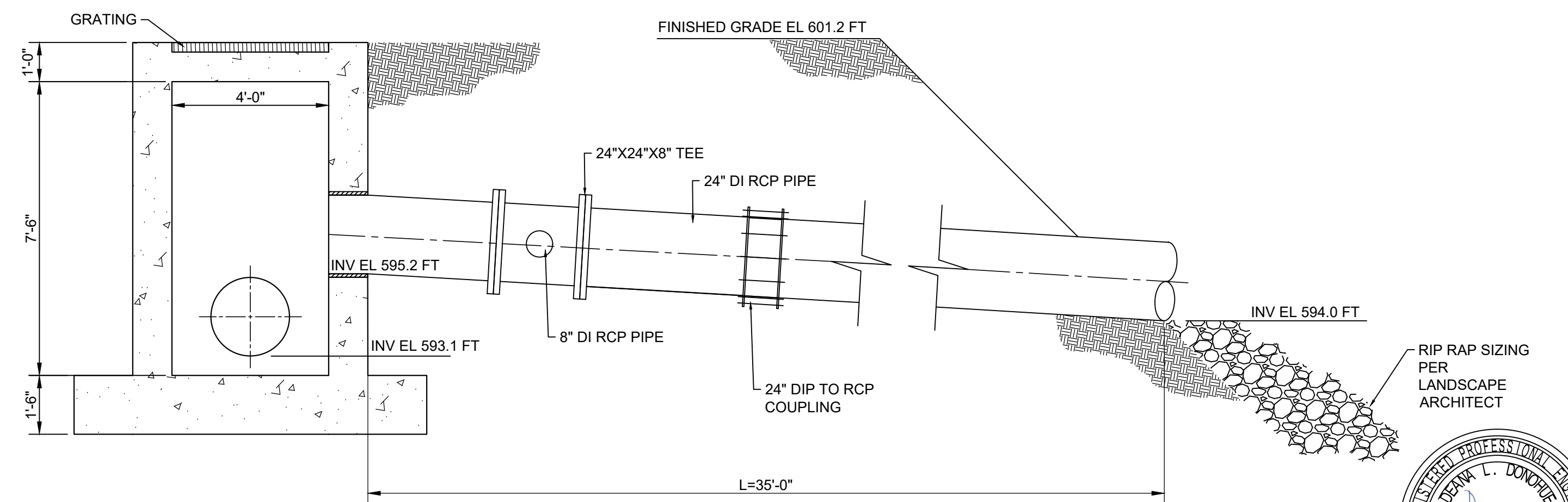
3 WALL PENETRATION  
SCALE: NTS



4 PUMP GUIDE RAIL SYSTEM  
SCALE: NTS



5 PIPE LAYOUT FROM VALVE VAULT TO TRANSITION STRUCTURE  
SCALE: 3/8" = 1'-0"



6 PIPE LAYOUT FROM TRANSITION STRUCTURE TO UPPER BASIN INLET  
SCALE: 3/8" = 1'-0"

90% PLANS NOT FOR CONSTRUCTION



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1104 Corporate Way  
Sacramento, CA 95831  
916-429-3231

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06/03/2024

DRAWN BY					REVISIONS				CITY OF PASADENA-DEPARTMENT OF PUBLIC WORKS			
N.ARNOLD	MARK	DATE	DESCRIPTION	BY	CHKD	APPROVED	PROJECT	SAN PASCUAL REGIONAL STORMWATER CAPTURE PROJECT	SHEET	3	OF	48
D. DONOHUE							SHEET TITLE	MANHOLE DETAILS	DWG. NO.	SP-M-3		
CHECKED BY							SCALE	AS SHOWN	ACCOUNT NUMBER	XXXXXX		
			AS BUILT									

